THE ALPS IN 1864

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FOR

DAVID DOUGLAS.

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THE ALPS IN 1864

A PRIVATE JOURNAL

BY

A. W. MOORE

EDITED BY

ALEX. B. W. KENNEDY

LL.D., F.R.S.

MEMBER OF THE ALPINE CLUB

EDINBURGH
DAVID DOUGLAS
1902

EDITOR'S PREFACE

In writing this Preface I complete, not without regret, a pleasant task which has occupied much of my spare time during the last three years. For many years a copy of Moore's Journal of 1864 has been the most valued book in my own Alpine Library. *The Alps in 1864* was, however, never published. I believe that only about one hundred copies were printed;—these were presented by Moore to his personal friends, so that the work has remained hitherto practically inaccessible to general readers. It seemed to me a pity that the ever-growing circle of those who take an interest in Mountaineering—whether active or only academic—should not have an opportunity of reading a book which is truly, as the Editor of the *Alpine Journal* said at the time of Moore's death, 'one of the most vivid and fascinating books of Alpine travel which have ever been written.' In reply to my request, Mr. Moore's family were good enough not only to give me permission to reprint the Journal of 1864, but also to place at my disposal several manuscript volumes of later Journals which had been preserved, and of which I have been able to make much use.

I have left the text of the Journal exactly as originally printed, excepting only where later usage or knowledge has altered the names of mountains or places, or their spelling,—in which case the balance of convenience seemed to indicate the adoption of the more modern nomenclature. These changes, however, are few and unimportant. The sketch-maps in the text are facsimiles of those in the original book. Correct maps are now accessible to every one, but the rough originals are much

more interesting from every point of view than the work of later map-makers, while they serve equally well to indicate the routes taken. I have to thank Mr. Godfrey Ellis for kindly lending me Moore's own travelling maps, which are now in his possession, and on which all his routes are carefully traced in ink.

The Alps in 1864, as originally printed, was not divided into chapters. Its contents are represented by Chapters I. to XV. of this reprint, and what I have called Chapter XVI. was printed at the end of the volume (as it did not belong to 1864) as an Appendix. At the end of Chapters VII., XI., and XIV., I have added matter from later Journals relating specially to the climbs described in those chapters. Chapters XVII. to XX. are taken entirely from Moore's later Journals, and contain accounts of the first crossings of two passes and of three ascents which have special interest.

Some extracts from Moore's Journal are given, as all readers of mountain literature will remember, in Whymper's *Scrambles*. Other portions Moore gave to the Alpine Club from time to time, in the form of papers, and these were duly published in the *Alpine Journal*. As now published, however, the whole text, so far as it belongs to the years after 1864, is given exactly as I have found it in his manuscript Journals.

A few notes which occur in the text are those which Moore gives himself. The notes which I have added are all placed at the ends of the chapters. I have endeavoured in them to deal with those points—topographical, historical and other—which seemed likely to interest such readers as may themselves have followed, or may wish to follow, any of Moore's scrambles. Being placed by themselves, the notes are very easily skipped by those who prefer the mountaineering interest undiluted.

I have endeavoured to make the illustrations show not only the mountains and passes climbed or crossed by Moore, but also, as far as possible, the details of his climbs as he describes them, so that the more interesting parts of his routes can be

followed very closely by the help of the descriptions to the plates. In a large number of cases I have gone specially to the places in order to obtain exactly the views which were required, but for many views I have to thank the kindness of friends, mostly fellow-members of the Alpine Club. In the description to the illustrations the name of the photographer is given for each, and I wish greatly to thank Mr. Clinton T. Dent, Mr. Alfred Holmes, Mr. Sydney Spencer, Mr. Hermann Woolley, Dr. Norman Collie, Mr. Henry Speyer, Mr. Sydney B. Donkin, Mr. O. K. Williamson, and Mr. J. Rennie, for their help in this matter. To Mr. Holmes I am especially indebted for enabling me to illustrate the upper part of the Brenva Glacier in a way in which it has never, I believe, been illustrated before, as well as for the use of his other negatives.

I have also to express my great thanks to Mr. William Douglas for the personal interest which, no doubt as a mountaineer as much as a publisher, he has taken in every detail of this work.

By the kindness of Mr. Horace Walker, whose name is so often mentioned in the following pages, I reproduce here a short notice of Moore's life which he wrote for the *Alpine Journal* of May 1887. Written at the time, and by a great personal friend and fellow-climber, I feel that it tells the story much better than I could tell it now if I were to attempt the task anew :—

In Memoriam—A. W. Moore.[1]

Few who knew him can have heard without regret of the untimely death of Mr. A. W. Moore on February 2 last, at Monte Carlo, whither he had gone to recruit his health before entering on the duties of the post, recently conferred upon him, of Political Secretary at the India Office. His distinguished official career, his brilliant mountaineering

[1] From the *Alpine Journal*, vol. xiii. pp. 258-261.

achievements, his valuable services for a number of years to the Alpine Club, and the esteem—in not a few cases affection—felt for him by many of its members, all seem to demand a fuller recognition in the *Journal* than was possible in the brief paragraph inserted in the last number, just as it was going to press.

A. W. Moore was born in 1841. On leaving Harrow in 1858 he entered the employ of the East India Company, of which his father, Major J. A. Moore, was a director, and on the abolition of the Company transferred his services to the Crown. In 1875 he was appointed Assistant Secretary in the Political Department of the India Office, and from 1876 to 1878, during the absence of Sir Owen Burne in India, acted as Secretary. When Cyprus was ceded to this country he was nominated one of three commissioners by whom the government of the island was to be conducted. This scheme was not carried out, but Moore's nomination shows the opinion formed of him by Lord Cranbrook, the then Secretary of State for India. In 1885 a rearrangement of the staff at the India Office took place, of which Moore took advantage to retire on a pension. He immediately returned, however, to the scene of his old labours as private secretary to Lord Randolph Churchill. As a further proof of the estimation in which he was held by the statesmen with whom he had come into contact, I may mention that a similar offer had been made to him by the Prime Minister, Lord Salisbury, who had had occasion to become acquainted with Moore's abilities during the previous Conservative Ministry. This offer, indeed, Moore had accepted, but it was afterwards considered that his services would be more valuable at the India Office. When the Conservative Ministry resigned Moore was made a C.B., and doubtless further honours were in store for him had he lived. He continued to act as Lord Randolph Churchill's private secretary, and when the Conservatives took office again last year he accompanied Lord Randolph to the Treasury, remaining with him till his retirement at Christmas last. Early in January 1887 Moore was appointed Political and Secret Secretary at the India Office, one of the most honourable and important posts to which a civil servant of the State can attain. Before entering on his new office he obtained two months' leave of absence on the ground of ill-health. I had noticed for the previous two years that he was failing both in health and spirits, and had repeatedly urged on him the necessity of a holiday, but with no

effect. It was the only subject on which I ever found him unreasonable. When he did take rest it was too late. The proximate cause of his death appears to have been typhoid fever, probably contracted at Hastings, where he spent a week before leaving for the Riviera; but the real cause was no doubt overwork. It is sad to think of his career, cut short by a too scrupulous adherence to supposed duty, just as his merits had been recognised, his services rewarded, and a full opportunity afforded him of displaying his ability and sagacity. Truly his sun is gone down while it was yet day.

Moore paid his first visit to the Alps in 1860, but it was not till 1862 that he began, in company with the Rev. H. B. George, those expeditions which have made his name so illustrious in the annals of our Club. To the list of the more important new expeditions given in the last number of the *Journal* might be added many others interesting and useful, and many others not new but carried out in brilliant fashion. The ascent of Mont Blanc from the Col de Voza, with Almer alone, was a very fine expedition, while that with Mr. Foster from Courmayeur to Chamonix over the top of Mont Blanc in a day, though it has been repeated, can hardly be surpassed. I may also mention as a remarkable ascent that of the Mönch from the little Scheideck, with descent to Grindelwald in a day—an expedition which had until then occupied two or three days. This ascent he made with his left arm strapped to his body, on account of having dislocated his shoulder a fortnight before by a slip on the Bies Glacier.

When Mr. D. Freshfield and Mr. Tucker made their expedition to the Caucasus with François Dévouassoud in 1868, Moore joined them at Tiflis, and shared in their glacier explorations and first ascents of Kazbek and Elbruz. In 1874 he got up another party, of which I was one, to visit the same country. Owing to persistent bad weather we did not effect so much in the way of climbing as we had hoped, but such success as we had—and we made a most interesting journey, seeing much that was new on both sides of the chain—was in no small degree owing to Moore's admirable leadership. His self-denial in insisting on the rest of the party ascending Elbruz, while he stayed below in order to be ready to accompany some Russian officers the next day, is but one of many similar acts of unselfishness which rise to my mind.

There can, I think, be no doubt that to Moore is due the credit of

the invention of climbing by amateurs in winter. It is true that before 1866 Professor Tyndall had visited Chamonix, and Mr. T. S. Kennedy Zermatt, but both those gentlemen encountered such bad weather that they had little chance of discovering how favourable the winter season might be for the prosecution of our favourite amusement among the High Alps. This was distinctly established by Moore by his passage of the Finsteraarjoch and Strahleck in 1866, and of the Brèche de la Meije in the following winter, and by his ascent to the Grands Mulets in 1869. I was with him on two of these winter expeditions, but I can lay no claim to the credit of the discovery, for then, as on all other occasions when we were together, my part was that of *fidus Achates* to his Aeneas. Indeed, I was well content to follow such a leader, for his knowledge of the Western and Central Alps was for long unsurpassed, and his ingenuity in planning new and interesting routes inexhaustible. He had an extraordinary gift too for topography, and his description of localities in his charming book, *The Alps in 1864*, and in his papers in the *Alpine Journal*, are singularly accurate and clear. He was one of the few men I have met, and Mr. John Ball confirms this remark from his experience in compiling the *Alpine Guide*, capable of giving complicated topographical directions which could be followed without fear of mistake.

In 1872, when Moore was appointed Secretary of the Club, and Freshfield editor of the *Journal*, if there was no lull in the enthusiasm for climbing, the Club at all events was in a very languishing condition, and its present prosperity is in no small degree owing to the exertions of the new secretary at that critical time. Many readers will remember what a model secretary Moore was, how energetic and judicious in his duties and correspondence, how animated and amusing in his after-dinner speeches. It is satisfactory to know that his colleagues proved their appreciation of his services by twice offering him the presidency of the Club, an offer which he fully appreciated, though he considered that his official duties compelled him to decline it.

Of Moore's personal character I will say but little. Attractive at first by his liveliness and wit, few men gained so much on nearer acquaintance, and his best friends were those who knew him best. He had a rare independence of thought and character. He loved discussion as much as he hated quarrelling. He stimulated every company he

came into, and won the liking even of those from whom he most differed by the frankness and good temper with which he set forth his thorough views. Underneath his good-natured cynicism and affectation of egotism were concealed as warm a heart and as affectionate and unselfish a nature as ever existed; and his loss will be a source of deep and lasting regret to all who ever enjoyed opportunities of appreciating his high and sterling qualities.—HORACE WALKER.

To Mr. Walker's notice I have only to add the remark that few climbers had either the capacity or the good fortune to take part in so many 'first ascents' as Moore. Of these, the following pages include the Brèche de la Meije, the Ecrins, the Col de la Pilatte, Mont Blanc by the Brenva Glacier, the Moming Pass, the Wetterlücke, the Winter Joch and the Tiefenmatten Joch. Others (both earlier and later) were the Jungfrau Joch with Leslie Stephen, H. B. George, and others; the Sesia Joch and the Gross Viescherhorn with H. B. George; the Ober Gabelhorn and the Piz Roseg with Horace Walker. All these are described in the first three volumes of the *Alpine Journal*. He gave an account of his winter climbs in a long paper read before the Alpine Club and published in Vol. v. of the *Journal*. His Caucasian scrambles in 1868 will be found in Freshfield's *Travels in the Central Caucasus*, and those of 1874 in Grove's *The Frosty Caucasus*, where will be found an account of the episode on Elbruz to which Mr. Walker alludes.

ALEX. B. W. KENNEDY.

1 QUEEN ANNE STREET, W.,
20th November 1901.

ITINERARIES

REFERENCE is made more than once, in the notes, to Moore's great activity on his Alpine excursions, and it will be of interest to modern climbers to see some of his itineraries. The particulars for 1864 are taken from the Journal. Those for 1865 (the year of the Gabelhorn, Piz Roseg, and Brenva) have been very kindly given to me by Mr. Horace Walker, and those for 1872 I have taken from his own journal of that year.

1864

June 18, 19, 20. London to St. Michel and Valloire.
,, 21. Col des Aiguilles d'Arves (with Horace Walker and Ed. Whymper, Almer and Croz).
,, 22. 'Bec du Grenier' to La Grave.
,, 23. Brèche de la Meije (first crossing).
,, 24, 25. The Ecrins (first ascent).
,, 26. Val d'Entraigues.
,, 27. Col de la Pilatte (first crossing).
,, 28. La Berarde to Bourg d'Oysans to Lautaret.
,, 29. Col du Galibier to St. Michel.
,, 30. Col des Encombres to Bourg St. Maurice.

July 1. Col du Bonhomme to the Pavillon Bellevue (with Almer only).
,, 2. Over Mont Blanc to Chamonix (with Almer only).
,, 3 and 4. At Chamonix.
,, 5. To Lognan with Whymper and Reilly, Almer, Croz, and Baguette.
,, 6. Col du Chardonnet to Orsières, Martigny and Sion (descent with Almer only).
,, 7. Sion to the Moiry Glacier.
,, 8. Attempt on the Grand Cornier (with Almer and Martin), descent to Evolena.
,, 9. At Evolena (Morshead and Perren joined the party).
,, 10. To Abricolla.
,, 11. Abricolla by the Col d'Herens to Zermatt (in 6¾ hours' walking).
July 12. Rympfischhorn (with Mr. and Miss Walker and Morshead).
,, 13. Attempt on the Dom from Zermatt, returning to Zermatt (with Morshead).
,, 14. Zermatt to Randa.
,, 15. Randa to the Hotel du Weisshorn over the Biesjoch (with Morshead and Gaskell).
,, 16. To Zinal (with Almer only).
,, 17. Zinal to the Arpitetta Chalets (Whymper and Croz joined party).
,, 18. Moming Pass to Zermatt (first crossing).
,, 19. Zermatt to Bel Alp.
,, 20. At Bel Alp.
,, 21. Ascent of Aletschhorn and by the Beich Grat to the Lötschen Thal (with Almer and Eggel).
,, 22. Wetterlücke to Lauterbrunnen (first crossing) and Grindelwald.
,, 23. At Grindelwald.
,, 24. To the Wengern Alp.
,, 25. Ascent of Eiger (with Mr. and Miss Walker, Horace Walker, and Whitwell).
,, 26. To Grindelwald.
,, 27. Over the Wetterhorn and back to Grindelwald, *viâ* Rosenlaui and the Scheideck (a twenty-hour expedition, with Horace Walker, Almer, and Rudolph Boss).
,, 28 to 30. Grindelwald to London.

1865

(With Horace Walker throughout, and Jakob Anderegg as guide.)

June 17, 18, 19. London to Stachelberg.
,, 20. Hut on Biferten Glacier.
,, 21. Ascended Tödi (first ascent by Englishman), descended by Porta da Gliemo (first crossing) to Dissentis.
,, 22. Chalets in Medelser Thal.
June 23. Camadra Pass (first crossing) to Olivone, and on to chalets in Val Carrassina.
,, 24. Ascended Rheinwaldhorn from Bresciana Glacier (new from that side), and descended by Vogeljoch (new) to chalets in Val Malvaglia.

June 25. Zapport Pass (first crossing) to Andeer.
,, 26. By Aversthal and over Piz Lunghino to Pontresina.
,, 27. Misauna Alp in Roseggthal.
,, 28. Piz Rosegg (first ascent).
,, 29. Maloya.
,, 30. Chiavenna.
July 1. Milan.
,, 2. Orta.
,, 3. Chalets in Val Sesia.
,, 4. Sesiajoch to Zermatt (second crossing, the first having been made by Moore and George in 1862).
,, 5. At Zermatt.
,, 6. Ascended Gabelhorn (first time).
,, 7. At Zermatt.
,, 8. Col de Bertol to Arolla (first crossing).
,, 9. Ascended Pigno del' Arolla (first time), descended by Col de Breney (new) to Chaurion, and over Col de Fenêtre to Ollomont.
July 10. Aosta.
,, 11. Val Grisanche.
,, 12. Weather bad—retreated to Courmayeur.
,, 13. At Courmayeur.
,, 14. To gîte on Brenva Glacier with Frank Walker, G. S. Mathews, and Melchior Anderegg.
,, 15. Mont Blanc by Brenva Glacier (first time), Chamouni.
,, 16. Martigny (joined by G. S. Mathews).
,, 17. Kippel.
,, 18. Beichfluh to Bel Alp.
,, 19. Faulberg.
,, 20. Mönchjoch to Grindelwald.
,, 21, 22. At Grindelwald.
,, 23. Kastenstein.
,, 24. Weather bad—back to Grindelwald.
,, 25, 26. Grindelwald to London.

1872

(With Horace Walker until the 19th July, and Melchior and Jakob Anderegg.)

June 22, 23. London to Altdorf.
,, 24. Over the Krükeli Pass to the Maderaner Thal.
,, 25. Ascent of the Oberalpstock, descent to Ledrun, and drive to Göschenen.
,, 26. Weather bad—to Realp.
,, 27. Over ridge north of Galenstock, and by Nägeli's Grat to the Grimsel.
,, 28. Weather bad—walk round Gelmer See.
,, 29. Over Studerhorn (new route) to the Eggishorn.
,, 30. To the Bel Alp.
July 1. Ascent of Gross Nesthorn and descent (new route) to Visp.
,, 2. Visp to Saas.
,, 3. Ascent of Fletschhorn.
,, 4. Mischabeljoch to Zermatt.
,, 5. Zermatt to gîte for Weisshorn.
,, 6. Accident on Bies Glacier (see p. 273). (During the rest of this year's climbs Moore was really a one-armed man.)
,, 7. At Zermatt.
,, 8. Walk to St. Nicholas and back.
,, 9. Weather bad.
,, 10. Over Col d'Hérens to Evolena.
,, 11. Col de Vouasson to Sion.
,, 12. Over Sanetsch and Chrinnen passes to Lauenen.
July 13. Attempt on Wildhorn in bad weather, down to An der Lenk.
,, 14. At An der Lenk.
,, 15. Over Wildstrubel to Schwarenbach.
,, 16. Walked to Kandersteg and back.
,, 17. Ascent of Rinderhorn, down to Kandersteg.
,, 18. Weather bad.
,, 19. Over Tschingel Glacier and by Gamchi Lücke to Mühlenen by Kien Thal.
,, 20. To Grindelwald *viâ* the Schynige Platte alone (Walker returning to Thun).
,, 21, 22. Grindelwald and the Wengern Alp.
,, 23. Ascent of Mönch (see chapter xx.), descent to Grindelwald.
,, 24. Walk to Wengern Alp and back.
,, 25. Ascent of Mettenberg.
,, 26. To the Gleckstein hut (G. E. Foster joined the party).
,, 27. Over the Rosenhorn and descent to Im Hof by the Gauli Glacier and Urbach Thal.
,, 28. To the Stein Alp.
,, 29. Return to Meiringen in bad weather.
,, 30 to Aug. 2. Home by Berne, Cologne, and Brussels.

AUTHOR'S PREFACE

THIS Journal of my Alpine wanderings in 1864 is not intended for general circulation, but I cannot submit it to even friendly critics without a few words of apology for its manifold defects.

My object in originally writing it was to compile a narrative, the subsequent perusal of which might recall to my own recollection the various details of my mountaineering campaign of that year. With this view I recorded at full length all the trivial incidents which form the staple of such a tour and constitute its charm. But these details, though full of interest to myself, will be very dull reading to other people, and had I at the time had any idea that the narrative would ever emerge from the obscurity of manuscript, I should have omitted most of them. Want of time has prevented me rewriting the book on an entirely different principle, and it is therefore printed almost word for word as it originally stood. I can only trust that the intrinsic interest of most of the expeditions described will induce my friends to wade through the attendant mass of comparatively unimportant matter.

For the numerous faults of composition, which will, I fear, be found in the volume, I can only plead in excuse that I have throughout sacrificed elegance, and sometimes, perhaps, correctness of expression, in order to obtain minuteness of topographical detail. I have only further to add, with reference to my speculations as to the accessibility of various mountains, most of which have been falsified by subsequent events, that I have allowed them to remain as written in order to show how worthless is the opinion on such points of even a fairly experienced observer. In all such cases an explanatory note is appended.

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covered, below the cliffs, which end in a very sharp point of rock. They then crossed over to the right hand or south side of the watershed, and followed the slopes up to the point which appears highest in the photograph, and which I believe to be that called by Moore the Bec du Grenier. To the left of it are further summits of the Aiguilles de la Saussaz.

THE MEIJE FROM THE TÊTE DE LA MAYE . . (J. RENNIE) *p.* 33

This view is really from the same place as Plate IV., but taken under very different atmospheric conditions.

PLATE III. THE MEIJE FROM ABOVE LA GRAVE (A. B. W. K.) *to face p.* 34

This view was taken from a point (marked 2146 metres) on the slopes above La Grave, and distant from the summit of the Meije about five miles in a straight line. The mountain itself presents a somewhat different appearance from that described on p. 26, being looked at from a much lower point, but in general the view is similar to that from the 'Bec du Grenier.' The western, or highest, summit of the Meije (13,081 feet) here seems to tower above all the rest of the ridge. To the right (west) of it the cliffs slope precipitously down to a secondary peak (the Pic du Glacier Carré, 12,665 feet), and then further down by the rocky promontory known as the Doigt, to the well-marked Col which forms the Brèche to the right of which rise the long slopes of the Rateau. The great glacier falling over the slopes to the left of the centre of the photograph is the Glacier de Tabuchet, wrongly named Glacier de la Meije on Moore's map. This is separated by a rocky ridge on its western side from the Glacier de la Meije (Glacier de la Brèche of Moore's map), which lies at a lower level, and falls very steeply from the north-west face of the mountain and the Brèche itself. To the right of this glacier is seen the 'forked buttress' enclosing its narrow western branch, and beyond this again a part of the Glacier du Rateau (on the extreme right), marked Glacier de la Lauze on Moore's map. The route taken was up the valley leading to the Glacier de la Meije (the track high above the stream can be seen in the photograph), across the foot of that glacier to the foot of the 'forked buttress,' up the eastern side of this buttress (where the photograph shows a succession of snow patches) to its upper part, then to the right on to the ice, and finally when the glacier becomes more level, to the left again direct to the Brèche. It must be remembered that this upper part of the glacier is very much foreshortened in this view; its true proportions are somewhat better, but by no means fully, seen in the view which heads Chapter II. It has to be remembered also that Moore's sketch map, although more nearly correct than any other map published in 1864, is only

to be taken as giving a rough indication of the general features of the district traversed.

PLATE IV. THE MEIJE FROM THE SOUTH (ALFRED HOLMES) *to face p.* 40

This view is taken from the Tête de la Maye, a well-known viewpoint of 8275 feet, at the angle between the Val Venéon and the Val des Etançons, and immediately to the north of La Bérarde. A comparison of Plates III. and IV. will show that they are taken from almost exactly opposite points ; the outline of the Meije itself is identical in the two, but of course reversed as to right and left. The upper part of the glacier near the pass is in both cases very much foreshortened. The route followed on the descent can be clearly traced on the photograph ; but from Moore's description, it would seem that the snow-covered glacier extended considerably further in 1864 than when Mr. Holmes's view was taken, as the party crossed the glacier under the long southern rock spur on to the eastern branch of the glacier (right hand in the photograph), and followed it apparently over a considerable amount of ground which now appears only as the characteristic stony waste of the district. The bivouacking place was obviously on the mounds which show themselves at the foot of the long stony moraine, and the view also gives a very good notion of the wilderness which has to be traversed to reach La Bérarde.

THE ECRINS, FROM THE SUMMIT OF THE MEIJE . (SYDNEY B. DONKIN) *p.* 49

This view is from a photograph taken from the western summit of the Meije. So far as the Ecrins itself is concerned, the view should be compared with Plate IV. To the left of the Ecrins is seen the Pelvoux, and below it the summit of the Roche Faurio, from which Plate V. was taken, with the deep depression of the Col des Ecrins to its right. The Pic sans Nom peers over the shoulder of the Ecrins ; to the right of the mountain is the huge rocky wall of the Ailefroide, and beyond it again, on the extreme right, the Glacier de la Pilatte (with the Col), and Les Bans (see Plate V.). In the middle distance is the Grande Ruine and the mass of rock peaks and glaciers which form the western boundary of the Val des Etançons.

PLATE V. THE ECRINS . . . (ALFRED HOLMES) *to face p.* 56

The Roche Faurio (12,192 feet), from which this photograph was taken, is a summit on the watershed, which occupies a position about half a mile north of the Col des Ecrins very similar to that which the Ecrins itself occupies about a mile south of the Col. The distance between the two peaks is about a mile and a half in a straight line. The foreground in Mr. Holmes's photograph is a part

of the southern ridge of the Roche Faurio, descending towards the Col, which is itself almost, but not quite, visible. The steep slopes of snow rising upwards in the shadow, at the bottom (right hand) of the view, indicate sufficiently the extreme steepness of the couloir leading to the Col. The highest or eastern peak of the Ecrins occupies the centre of the picture, the Pic Lory (see note 3 to Chapter IV.), lying to the right of it. The snow dome on the right of the picture is the western summit or Dôme de Neige des Ecrins. The traces of ice avalanches corresponding to those heard by the party in 1864 are sufficiently visible; these must be of continual occurrence with such gigantic ice cliffs to produce them. The line of ascent kept well to the left of both these cliffs, and at the level of the upper one turned still further to the left to get on to the rocks. When these were abandoned the party must have returned to the upper lip of the bergschrund, just above a place where a considerable mass of broken ice seems to have fallen across it, followed the line of the schrund for about half the apparent horizontal distance to the peak, and then struck up to the eastern arête. The state of the snow when the photograph was taken renders it impossible to recognise either the 'Central Couloir' or the iced rocks. Although Moore speaks as if the former led straight up to the peak itself, it is obvious that the arête must have been struck considerably to the east of the summit, as it took thirty-five minutes of 'good going' to reach the top from the time that a start was made along the ridge. The ridge was abandoned (see Whymper's sketch, *Scrambles*, p. 212) soon after the Pic Lory was crossed, and the bergschrund recrossed somewhere below the rounded rocky point seen between the Pic Lory and the Dôme de Neige. The upper plateau of névé was then traversed to the east, and the original route rejoined somewhere near the eastern (left-hand) end of the great line of ice cliffs.

The actual difference in height between the Col and the bergschrund is from 1500 to 1600 feet. The horizontal distance between the same points is about as many yards. The average slope of the snow seen in Plate V. is therefore about one in three. The appearance of extreme precipitousness is, as very often happens in the Alps, quite misleading. The final ice or snow slopes above the bergschrund, however, are very steep.

FROM THE COL DU GALIBIER . . . . (A. B. W. K.) *p.* 81

This photograph was taken because of Moore's remarks on p. 114 as to the view of the Ecrins from the Col. He was speaking, however, of what could be made out through a telescope rather than what could be seen naturally. The part of the Ecrins seen, but from a great distance, is very closely the same as that in Plate V. The mountains to the right are the eastern neighbours of the Meije.

PLATE VI. THE GLACIER DE LA PILATTE (ALFRED HOLMES) *to face p.* 94

This view is taken from a point somewhat low down on the left bank of the Vallon de la Pilatte, where the slopes of the Tête du Chéret are shown on the sketch map. I have failed to obtain a photograph which shows the actual Col, which lies somewhat to the left of and beyond the two snow humps on the ridge to the east of Les Bans, the mountain which heads the glacier; but Mr. Holmes's beautiful view indicates very clearly the general nature of the descent on the side of the Glacier de la Pilatte, which the party found so troublesome. (See also the view which forms the heading to Chapter IV.).

Les Bans itself, a very fine mass, was first climbed by Mr. Coolidge with the Almers in 1878. His route lay up the eastern and north-eastern rocks, which form the left of the mountain in the photograph.

THE VALLEY OF CHAMONIX . . . . (A. B. W. K.) *p.* 120

An afternoon view after a stormy day, taken from the cairn ('signal') above the Montanvert. The lowest point on the distant ridge across the picture is the Col de Voza, and the Pavillon Bellevue (p. 131) is a little above it to the left.

PLATE VII. MONT BLANC FROM THE AIGUILLE DE BLAITIÈRE (SYDNEY SPENCER) *to face p.* 136

This view is taken from the summit of the Aiguille de Blaitière, 11,592 feet, or over 4000 feet below the top of Mont Blanc itself. The two-headed rocky peak in the centre is the Aiguille du Plan (12,051 feet), and the triple rocky summit to its right is the Aiguille du Midi (12,609 feet). Behind this ridge of Aiguilles, and approximately at right angles to its general direction, is seen the whole length of the snow ridge by which Moore's ascent was made. On the extreme right are the steep slopes of the Aiguille du Goûter, which caused the climbers so much delay. The rounded top of the Dôme lies just behind the Midi, and the Bosses du Dromadaire are just to the right of the Plan. The Calotte, or highest point of Mont Blanc itself, shows just to the left of the Plan. The illustrations heading Chapters XVI., XIX., and XX. also illustrate, from different points, the Dôme ridge of Mont Blanc and Moore's route on this occasion. The line of descent is (excepting only its extreme upper part) hidden by the intervening snow slopes of the Mont Maudit and Mont Blanc du Tacul.

Of the Aiguilles seen in this view, it may be added that the Plan was first climbed by Mr. James Eccles and Mr. Tideman in 1871. The northern point of the Midi was climbed (under the name of the 'Northern Aiguille of Mont Blanc') by Count Matzewski as long

ago as 1818. (See *Blackwood's Magazine* for November of that year.) The Count, however, was quite before his age in rock climbing, and the highest point was first reached only in 1856 by three Chamonix guides, and not by a traveller until three years later. The summits of the Blaitière were not reached until 1873 and 1874 by Messrs. T. S. Kennedy and Garth Marshall, and Mr. E. R. Whitwell.

THE AIGUILLE D'ARGENTIÈRE . . . (O. K. WILLIAMSON) *p.* 160

This view was taken from the Aiguille du Chardonnet, some rocks of which show on the left hand. The glacier up which Whymper's first ascent was made (p. 171), and also Moore's own route later on (p. 178), are shown; and the photograph also gives an excellent idea of the arête leading up from the Col which appeared so hopeless to Moore's party in 1864, and which in fact turned out so difficult when he tackled it in 1873. The dark summit of the Tour Noir shows to the right of the photograph. The steep slopes on the left of the Aiguille are those of which Plate VIII. shows the lower portion. The Col du Chardonnet itself is too low down to come into the view.

PLATE VIII. THE GLACIER DE SALEINAZ (SYDNEY SPENCER) *to face p.* 170

This view was taken from near the head of the 'level field of névé' mentioned on p. 171, just at the foot of the steep snow slope which lies immediately below the Col du Chardonnet on the Swiss side. The ice-fall to the right and the dark ridge of rocks beyond it belong to the north face and buttress of the Aiguille d'Argentière. Beyond the buttress, and hidden by it, is the arm of the glacier down which lies the descent from the Col de la Tour Noir and Col de la Neuvaz (see note 5 to Chapter VII.). The Fenêtre de Saleinaz is reached by an ascent on snow to the left of the photograph (not seen). In front lies the whole length (four or five miles of ice) of the Glacier de Saleinaz, on the right bank of which are steep hanging glaciers which seem to have caused some anxiety to the first travellers who passed this way. In the distance, over the ridge of the Argentière, the summit of the Grand Combin (14,163 feet) shows itself.

THE 'STEINBOCK' . . . . . (A. B. W. K.) *p.* 183

The view is taken from the Pigne de l'Allée (see heading to Chapter XVII.), and shows the whole of the Bouquetin or 'Steinbock' ridge as well as the summit ridge of the Grand Cornier. The corniced point in the centre of the picture is the 'Steinbock.' The rounded snow point to the right is no doubt Moore's viewpoint. The hollow beyond this latter point, after which the slope rises very steeply, is the point from which the party turned back, in view of the very unpromising nature of the peak which lay beyond. The great glacier

to the left of the Grand Cornier is the one falling down to the right in Plate IX. To the extreme left is seen the Matterhorn in the distance.

PLATE IX. THE GRAND CORNIER . . (A. B. W. K.) *to face p.* 196

This photograph is taken from the now well-known Mountet hut, the position of which is very near the point in Moore's map where the dotted track up the Zinal Glacier cuts the margin of the map. The same point is shown (marked 'Mountet') on the map of the Moming Glacier at p. 284. The northern ridge of the Grand Cornier, which forms a huge rock wall upholding the Moiry Glacier on its eastern side, is seen from end to end. The rock tower furthest to the right is the 'Steinbock,' or 'Bouquetin'; and the less marked, but higher, rock point between the Steinbock and the Grand Cornier is Moore's point of view. The photograph was taken in the middle of August, when there was no doubt much less snow on the north-east face of the peak than in early July, the time of Moore's visit. Whymper's ascent (the first) of the Grand Cornier was made on the 16th June 1865. He ascended by the shelving glacier seen on the left of the plate, at its head climbing the steep rocks leading up to the snowy crest of the eastern arête, from which to the summit was a climb of some two and a half hours along a sharp and narrow snow ridge. As mentioned in note 10 to Chapter VIII., the mountain was also climbed many years later by the northern arête and north-west face (to the right of the summit in the plate), and still later from the Col du Grand Cornier by the southern arête of the mountain, the lower rocks of which are seen in the distance on the extreme left of the photograph. The heading to this Chapter and also that to Chapter XVII. give further details of the Steinbock ridge.

THE DENT D'HÉRENS . . . . . (A. B. W. K.) *p.* 209

The view is taken from the Col d'Hérens. The Tiefenmatten Joch (Plate XX.) lies in the hollow under the shadow of the mountain.

PLATE X. THE MATTERHORN FROM THE TIEFENMATTEN GLACIER (A. B. W. K.) *to face p.* 218

This photograph was taken from a point on the edge of the névé of the Tiefenmatten Glacier, at a height of about 3000 metres. The view of the mountain itself is practically the same as that from the Col d'Hérens, but the foreground is, of course, entirely different. The snow Col on the extreme right of this plate is the Col Tournanche, which was crossed for the first time a few weeks after the date of Moore's Journal. The rocky point to the left of this Col is the Tête du Lion, and to the left of this again the Col du

Lion. These are seen, of course, from a point of view almost exactly opposite to that which has been rendered so familiar, even to those who do not personally know the Alps, by Mr. Whymper's *Scrambles*. The ascent to the Col du Lion from the opposite, or Italian, side, does not now present any difficulties to the climber, but the terrible accident of last summer shows (what no one should have forgotten) that even fixed rods and chains cannot make a mountain safe to those who lack the one great essential—experience. The ascent of the Col du Lion from the Swiss side (that seen in the plate) was made by Mr. Mummery with Alexander Burgener in 1880 (see Mummery, *My Climbs in the Alps and Caucasus*, p. 7), and its still more dangerous descent by Dr. Güssfeldt with Alexander Burgener in 1881 (see Güssfeldt, *In den Hochalpen*, p. 253). It must be frankly admitted that both expeditions were very dangerous, and the latter especially so. Güssfeldt's account of the way in which the direction of the attack from the falling stones changed in the afternoon, as the sun went round, and turned his position of shelter into an enfiladed trench, is hardly calculated to lead more climbers to follow his example.

The ordinary Italian ascent of the Matterhorn follows to a considerable extent the long rock ridge seen leading up from the Col du Lion, leaving it in the upper part (Whymper's *Crête du Coq*) for the Italian face. The long horizontal shoulder is a very narrow rock ridge, which has to be traversed from end to end. It is known as the *Tyndall Grat*, and the right-hand end of it, almost hidden by clouds in the photograph, looks from Breuil like a separate pointed peak, and bears the name of *Pic Tyndall*. From *l'Enjambée*, a notch just where the Tyndall Grat abuts against the final peak, the present route turns over on to the Italian face of the mountain. The first ascent (by the Carrels) from the Italian side was, however, made by a very difficult traverse on the face of the peak which is seen on the photograph. The snowy shoulder on the left of the peak forms a part of the Z'mutt arête, which was first climbed by Mr. Mummery on the 3rd September 1879, while on the same day Mr. Penhall made the ascent by the west face (the face seen in the plate), crossing the great snow couloir which now bears his name, and joining the Z'mutt arête within an hour of the summit. The ridge by which the ordinary ascent from Zermatt is made is not seen at all in the plate.

THE GABELHORN . . . . . (A. B. W. K.) *p.* 221

The Gabelhorn is one of the mountains of which Moore made the first ascent, with Horace Walker, on July 6th, 1865. There is a short account of the expedition in the *Alpine Journal*, vol. ii. p. 133, but no full account was ever published, nor can Moore's Journal for

the year 1865 be found, unfortunately. The second ascent of the mountain was made from the Zinal side, on the day after Moore's climb, by Lord Francis Douglas, who was killed in the first ascent of the Matterhorn only a week later. The snowy top of the Wellenkuppe shows over the middle of the ridge, and the extreme top of the Rothhorn (see also heading to Chapter XIII.) is visible just behind the Unter Gabelhorn at the right-hand end of the ridge. In the distance, to the right, are the Weisshorn and the Schalliberg Glacier. The photograph was taken from the Hörnli slopes above the Schwarz See.

PLATE XI. THE RIMPFISCHHORN . (HERMANN WOOLLEY) *to face p.* 230

The position of the Unter Rothhorn, from which Mr. Woolley's photograph was taken, is marked on the sketch map at p. 223. The top of this point forms the foreground of the view, which was taken in winter, and so shows snow on the lower slopes, which are of course quite free from it in autumn. The peak in the centre of the view is the Rimpfischhorn itself, the 'mamelon' of rock, still in great part bare of snow, forming a huge bastion above the long, graceful snow slopes which form the upper part of the Langenfluh Glacier. To the right of the Rimpfischhorn are seen the Strahlhorn and the ungainly rock peak of the Adlerhorn, which are separated from the former by the Adler Glacier, over which the Adler Pass leads to the Saas Valley. The snow slopes of the Schwarzberg Weissthor show on the extreme right.

The Ober Rothhorn shows at the extreme left of the view, its ridge extending through the Fluhhorn to the Rimpfischwänge (see sketch map), which curves round again to the main peak. The 'clappey,' all under snow, covers the slopes in the middle of the photograph, and the point where the ridge was struck (p. 225) was probably the little snow Col in this ridge which appears directly below the peak itself.

THE BIESJOCH . . . . . (O. K. WILLIAMSON) *p.* 245

The view is taken from the Frilijoch, and gives a general idea of the route down from the Biesjoch as taken by Moore. To the left of the pass is the Brunegghorn (see description of Plate XII.), and to the right the great mass of the Weisshorn, showing the precipitous western face and the well-known 'gendarme.'

PLATE XII. THE BIESJOCH AND FREIWÄNGE . (A. B. W. K.) *to face p.* 252

The view given in this plate is very similar to that described by Moore on p. 236 (see note 2 to Chapter X.). The deep valley of St. Nicolas, in which is the village of Randa, lies between the dark

foreground and the slopes further off. The route described in the text followed the left bank (right hand in the photograph) of the steep gorge of the Biesbach, until the level of the snout of the glacier (about mid-height in the view) was reached. This point is about 2000 feet above Randa. The glacier was left below and the slopes traversed upwards to the right until the little Col was reached which is seen just in front of a great snow slope, and to the right of a little rounded rocky point. The party turned to the left behind this point, and so reached the foot of the upper ice-fall just at the foot of the Freiwänge rocks, at a point nearly 3000 feet above the snout of the glacier. The ice was traversed upwards and to the left, in the direction of a triangular rock patch visible close to the upper level of the ice. This ice work proving too difficult, the glacier was recrossed to the right, on the level, to the foot of the rocks, which were then climbed always to the right, and the crest was finally reached somewhat to the left of what looks like the lower of two rounded summits, almost exactly in the middle of the photograph. The actual height of the rocks climbed is probably about 1200 feet. The fact that it took so strong and quick a party about two and a quarter hours, shows how difficult the rocks were. The point when the crest of the rock ridge was reached is almost exactly the same height as the Biesjoch (11,644 feet), and hides it from view.

The double-headed point seen over the higher part of the glacier to the left of the plate lies really about a mile and a half further back than the edge of the ice. It is the point of 4161 metres (13,632 feet) mentioned by Moore, and is in reality a point on the main north ridge of the Weisshorn. It is known now as the *Bieshorn*, but the name does not occur on the Swiss map.

The highest rocky point in the photograph, which here appears as the culminating point of the Freiwänge ridge, is the Brunegghorn (3846 metres, 12,618 feet). This peak is better known from points much further north in the St. Nicolas Valley, from which its northern slopes only are seen, and it appears as a beautiful snow cone.

THE MOMING RIDGE . . . . . (A. B. W. K.) *p.* 280

This engraving should be compared with Plate XIII. It is taken from the Pointe d'Arpitetta (see heading to Chapter XIV.), and therefore shows the upper part of the pass much less foreshortened than Plate XIII. The Schallihorn rocks, by which the upper plateau was actually reached, are on the left, then the 'ice cliffs' with the avalanche *débris* below them, and on the right the 'ridge of rocks.' The Moming Pass itself is exactly in the centre of the photograph, and on the right of it is the summit of the Rothhorn, the point of view being almost exactly opposite to that from which

the heading to Chapter XIII. was taken. The summit ridge of the Rothhorn—one of the most fascinating arêtes in the Alps—is exactly end on, so that it does not really show.

PLATE XIII. THE MOMING PASS . . (A. B. W. K.) *to face p.* 294

This view is taken from the upper Arpitetta Alp, very near the chalet in which Moore's party spent so uncomfortable a night. Between the immediate foreground and the rocks and glacier beyond lies the deep valley carrying all the water from the Moming and Weisshorn Glaciers down to the Zinal Valley. On the extreme left is the summit of the Schallihorn, its rocky face seamed with snow couloirs falling down to the western portion of the Moming Glacier. The first depression to the right of the Schallihorn is the Oberschallijoch (see note 3 to Chapter XII.), then comes the Moming Spitze (see note 4 to Chapter XII.), and then the Moming Col itself. From this the snow ridge stretches south-west to the northern end of the Rothhorn ridge, and then branches due west along the beautiful arête called 'Le Blanc,' until it joins the Besso, a part of the northern ridge of which fills up the right-hand portion of the view. The main ridge of the Rothhorn, with its final peak and steep western face, are seen over a portion of 'Le Blanc.'

The 'long and lofty ridge of rocks' referred to on p. 285 is the steep wall seen almost edgewise in this view, under and slightly to the right of the pass itself. To the left, between it and the rocks of the Schallihorn, is the 'precipitous wall of ice cliffs,' showing, by the huge line of broken fragments below it, that its character remains unchanged. To the right, from the rock wall to the Besso, lies the 'broad and shattered ice fall,' the ascent of which is the first of the four plans suggested on p. 285.

The photograph was taken from a height of about 2260 metres. The top of the rock wall, and therefore the upper plateau of névé which it supports, is about 3270 metres. There is, therefore, between these points a height of about 3300 feet, so that the glacier itself is unavoidably much foreshortened from this point of view. Its proportions are in some respects better seen in the heading to this chapter, which is taken from a much higher point. The pass itself is about 1700 feet above the highest point of the rock wall.

The route actually traversed and described in Moore's Journal begins at the point on the glacier furthest to the left, as seen in the photograph (the 'dirty little tarn' is not visible), just where the ice appears above the rocky slopes in the middle distance. From this point the glacier was traversed to the right until nearly under the point where the rock wall and the ice-fall join, at the left-hand or eastern end of the former. The débris slope which is clearly seen in the photograph, below the ice-fall, is no doubt the lineal descendant

of the similar slope to the right of which the party ascended. The traverse to the left was made across the top of the débris and close under the steep and broken ice-fall. The Schallihorn rocks were then climbed until the level of the 'narrow plateau' above the ice-fall was reached, and this névé was traversed to the right until a point immediately below the Col was arrived at, from which the Col itself was reached directly up the steep final snow slope.

THE ROTHHORN AND WEISSHORN . . . (A. B. W. K.) *p.* 306

This is the well-known view from the Theodul Horn, the valleys of Z'mutt and Zermatt lying below under the clouds. Between the two mountains are seen (from left to right) the Moming Spitz and the Schallihorn (see Plate XIII.). Beyond the Weisshorn the top of the Brunegghorn (with the Freiwänge rocks, Plate XII.) is visible. The long ridge extending to the right, in front of all these points, from the Rothhorn to the Mettelhorn, is the ridge over which the party had so much difficulty in finding their way (p. 301). The point at which they first struck it was the top of the rock wall (seen directly below the Oberschallijoch) which forms the upper (southern) boundary of the Rothhorn Glacier. The actual point where the ridge was crossed is further to the right, where the rock wall dies away to nothing.

PLATE XIV. THE ALETSCHHORN . (ALFRED HOLMES) *to face p.* 312

This view is taken from the bend of the Ober-Aletsch Glacier, on its left bank, just at the place where the Fusshörner are marked on the sketch map. The 'spur running straight down' is the long line of rocks descending (on the left of the photograph) to the Ober-Aletsch Glacier. The 'well-marked depression' in the western bay is the snow Col in the extreme left. It lies in reality, however, far above the Lötschen Lücke, from which it is separated by nearly 2000 feet of very steep ice slopes, which, I believe, have never been traversed. The 'eastern bay' is that which fills up the greater part of the photograph. The lower rocks to the right in the view are what Moore calls 'the last spur of the Fusshörner,' between which the route, ascending, kept well to the right until near the foot of the great wall of rock which is seen to form the southern arête of the mountain. The base of these was at first skirted along to the left, the climbers then came further out on to the ice, but were obviously never very far from the arête, which was finally reached at a point a little below the clouds on the photograph, where the ridge becomes snow, just above a large rocky tooth (3966 metres). The remainder of the ascent was made by the arête itself, almost due north.

THE VALLEY OF ZINAL . . . . . (A. B. W. K.) *p.* 327

The view is taken from the Sorebois Alp, above the village of Zinal. The pyramidal rock peak on the left is the Pointe d'Arpitetta, from which the heading to Chapter XII. was taken. The Moming Ridge and the Rothhorn are seen over it, then the ridge known as 'le Blanc' leading up to the two-headed Besso, beyond which the Gabelhorn shows, and the Col Durand (p. 401). The Arpitetta Alp (see description of Plate XIII.) lies on the dark slopes under the Rothhorn and Besso.

PLATE XV. THE WETTERLÜCKE . . (A. B. W. K.) *to face p.* 328

The view is taken from Ober Steinberg, on the north of the pass, and shows the Breithorn Glacier over which the descent was made. The dark slopes (the photograph was taken in early morning before the sun had got down the valley), form the end of the Lauterbrunnen Valley. The Breithorn is on the left, with the steep ridge of which Moore speaks, and which he afterwards climbed (see p. 339), descending to the pass. On the right (north) of the pass is the Tschingelhorn, and still further to the right, but hardly visible against the sky in the morning light, is the little rocky peak of the Lauterbrunner Wetterhorn, which from this point looks much higher than it really is. The ordinary route to the Tschingel Pass is just beyond the picture, to the right. The crevassed slopes of the Breithorn Glacier are too much foreshortened—owing to the point of view—to give more than a general idea of the nature of the ice-work.

THE WETTERHÖRNER . . . . . (A. B. W. K.) *p.* 344

This view is taken from the Gummen Alp, above Isenfluh, looking right up the Grindelwald valley to the Wetterhorn. It shows the relative positions of the three peaks of the mountain somewhat more clearly than Plate XVII., and shows also the 'actual snow Col' between the Wetterhorn and the Mettelhorn.

PLATE XVI. THE EIGER AND MÖNCH . . (A. B. W. K.) *to face p.* 346

The photograph was taken from the Känelegg, a charming point just sufficiently far from and above Mürren to be quiet and solitary when the promenades and tennis-courts of that mountain Brighton are thronged with the highly ornamental crowd which forms a terror to the few mountaineers who ever penetrate so far. The view shows Moore's routes both on the Eiger (Chapter XV.) and on the Mönch (Chapter XX.). The photograph was taken in September, and in consequence partly of the time of year, and partly of the receding of the ice in recent years, it shows far more rock and far less glacier than corresponds to Moore's description. The northern

branch of the Eiger Glacier, which alone Moore's route touched, is represented mainly by the two large patches showing vertically above the top of the central pine-tree. The arête with the view of the Grindelwald Valley is the ridge on the left of these patches leading straight to the top of the mountain. The route lay mainly up this arête, or on the rock to the right of it, until the uppermost snow-fields were reached.

Between the Eiger and the Mönch is the depression of the Eiger Joch (11,875 feet), first traversed by Leslie Stephen and W. and G. Matthews in August 1859, after fourteen hours spent from the Wengern Alp, mostly in overcoming ice difficulties on the Eiger Glacier. (See *The Playground of Europe*, p. 113.) The actual point crossed was the top of the steep snow slopes seen to the left of the Mönch, and was about 200 feet higher than the lowest point of the ridge.

The route taken to the Mönch in 1872, started from much the same point as in the Eiger ascent, on the (true) right bank of the Eiger Glacier, just at the point covered by the top of the pine-tree in the plate. The glacier was crossed to the foot of the great rock rib, which is seen descending from the 'curtain' of snow at the top of the mountain, its upper part covered with snow and ice, and which separates the Eiger and Guggi Glaciers. As in the case of the Eiger, there was obviously much more snow on the rocks in 1872 than in 1900 when the photograph was taken. The 'small, nearly level, plateau' is just to the left of the rocks, in a hollow hidden by their summit, but the steep ice-fall below the plateau is seen in profile. Above the plateau the party reached the snow-covered part of the ridge, which is fully in view, and followed its right-hand edge until its junction with the main western ridge of the mountain, a portion of which is seen in the extreme right of the photograph. Turning to the left this ridge was then followed on easy snow to the top. The descent was made on the southern side of the mountain, so that no part of it is visible in the view (see Plate XXI.)

The deep valley seen in the photograph, which takes the drainage from the Eiger, Mönch, and Jungfrau, is the Trümleten Thal, the avalanches falling into which have not even lost their grandeur since they have become admirably visible from a railway carriage. The dark slopes at the foot of this valley on the right form part of the Schwarze Mönch, and the wooded heights on the left are portions of the Wengern Alp. The foreground is of course separated from these by the narrow valley of Lauterbrunnen.

PLATE XVII. THE WETTERHORN . (CLINTON T. DENT) *to face p.* 364

Mr. Dent's photograph, from which this plate was made, was taken in winter, and shows, of course, a far greater amount of snow on

the whole face of the mountain than exists in summer. This must be kept in mind in following Moore's route, which, as a matter of fact, did not touch snow until a point was reached which on the plate is at a distance of about four inches from the bottom.

The cliffs on the left are those of the north-west ridge and face of the mountain, directly overlooking the Great Scheidegg. The high-lying glacier leading from the cliffs to the peak is the Hühnergutz Glacier, and it will be noticed that a huge avalanche, like a spray waterfall, 2000 feet high, was falling down the cliffs from a couloir fed by this glacier, at the instant when the photograph was taken.

The highest (looking) peak is the Wetterhorn itself, and following the ridge from it to the right a little rocky point marks the upper end of the ridge of rocks referred to on p. 362 ; still further to the right rises the snowy pyramid of the Mittelhorn, the highest of the three peaks ; and still further to the right the Rosenhorn, after which the ridge falls away. Of course it will be remembered that as these points are nearly 8000 feet above the valley from which the view was taken, they are very much foreshortened, and some effort is necessary to realise their true relative positions, which are better shown in the heading to Chapter xv.

Moore's route starts from the further pine woods (in shadow) immediately above a couple of chalets in the centre of the picture. It ascends gradually to the left on what is snow in the photograph under a long tongue of rocks, and then turns back to the right, always ascending, until the sloping snow-field (in shadow) is reached, which will be seen to be considerably above the level of the ice-fall visible above the thick bank of pine-trees. This traverse is the *Enge*, and the left-hand corner of the snow-field is the 'sharp angle' of p. 359. The route continued always to the right and upwards (along the snow in shadow) until the 'opportune gully,' which is beyond the limit of the photograph to the right.

The position of the Gleckstein is very close to the little bit of sunny snow above the shadow at the right-hand edge of the view. The 'almost level strip of glacier' lies behind this point and is not visible, but the ridge of rocks above it, which caused so much trouble, is full in view, and the depression to the left of the summit of these rocks and to the right of the peak is very near to the 'actual snow Col.' The steep snow slope by which the peak was actually reached is, of course, at the back of the peak as seen from Grindelwald, and is therefore not visible.

MONT BLANC . . . . . (A. B. W. K.) *p.* 378

The view is taken from the little Aiguille des Grandes Montets. The ridge of the Dru is on the left, running precipitously down to

the Mer de Glace, out of sight below. The principal Aiguilles can be identified from the description of Plate VII.; the Aiguilles de Blaitière and Charmoz are also seen to the left of the Plan, as well as what appears to be the summit of the Dent du Requin.

PLATE XVIII. MONT BLANC AND THE BRENVA GLACIER (ALFRED HOLMES) *to face p.* 380

The photograph was taken from the Crammont, above Courmayeur. The Pétéret ridge is seen practically end-on,—the fine rocky cone in the centre is the Aiguille Noire de Pétéret, behind it rises the Aiguille Blanche de Pétéret, and above this again Mont Blanc itself. (See p. 384, and the description of the heading to Chapter XVIII.). The visible summit is, however, the point known as Mont Blanc de Courmayeur, about 190 feet lower than the Calotte itself, which it hides. Immediately to the left of the Pétéret ridge comes the Glacier du Fresnay, separated by the Innominata from the Glacier du Brouillard, lying under the huge rock wall of the Mont Brouillard. (See p. 422.)

To the right of the Pétéret ridge is seen nearly the whole length of the Brenva Glacier, with the 'heisse Platte' at its steepest part. Beyond the ice-fall, on the extreme right of the plate, is the 'irresistibly tempting' resting-place (p. 383) at the margin of the glacier; to the left of it the 'bay,' and beyond this again, to the left, the 'wall of rocks' supporting the upper glacier, on the upper part of which the party bivouacked for the night. The 'schöner Eisfall' lies between these rocks and the Pétéret ridge,—it is shown better in Plate XX. The rocks by which the actual climb was made are seen projecting into the glacier above some rocky pinnacles on the Aiguille Noire, and the ridge of these rocks, gradually becoming snow, can be easily traced upwards to the left. The absence of 'atmosphere,' characteristic of upper Alpine landscapes, makes it difficult to realise how huge an ice-valley lies beyond this ridge, under the cliffs of the Mont Maudit. The ridge, which appears nearly horizontal, extending across to the right from the Mont Maudit to the Tour Ronde, above the 'wall of rocks' (over which is seen the Mont Blanc du Tacul), forms one side of this valley, the ridge which was climbed forming the other side. The top of the Corridor (or Col de la Brenva,—see note 6, p. 393), is close to the slight snowy depression to the left of Mont Maudit, on the main ridge which descends to the right from the summit of Mont Blanc.

PLATE XIX. THE UPPER BRENVA GLACIER (ALFRED HOLMES) *to face p.* 388

The rocks at the extreme right of Plate XIX. are part of a ridge falling south-eastwards from the Tour Ronde, and now known as the Mont de la Brenva. (The black pinnacles in the heading to

Chapter XVIII., standing in front of the Aiguille Noire, are a part of this ridge.) Mr. Holmes's photograph was taken from a point on this ridge, facing the Aiguille Noire. The rocks in the foreground, which are really separated from the point of view by the whole of the 'bay' glacier (p. 383), are those on which the party made their *gîte*. The Brenva ice-fall lies to their left, and across it is seen the whole length of the ridge which was climbed. The place where the rock arête ended in the sensational ice ridge is just above and to the left of a conspicuous black tower on the ridge, clearly visible in the plate. Above this point there are still ice-slopes, corresponding to those on which so much step-cutting had to be done, but the details of the upper glacier are now naturally in many respects different from what they were in 1864. The snow-covered hump on the top ridge, a little to the right of the upper end of the line of ascent, is the Mur de la Côte, at the foot (right-hand side) of which is the head of the Corridor, or Col de la Brenva. The upper rocks on the right of the photograph are those of the Mont Maudit, and can easily be identified as being the same as those seen (but from a much greater distance) in Plate XVIII. On the left of the photograph is the Col de Pétéret (first reached by Mr. J. Eccles in 1877), which lies between Mont Blanc de Courmayeur and the Aiguille Blanche, the actual summit of which is only just out of the view to the left. It was on the rocks of the Mont Blanc de Courmayeur, above the Col, that Dr. Güszfeldt, with Rey and Klucker, spent their second night on an ascent of Mont Blanc by way of the top of the Aiguille Blanche de Pétéret (*Der Mont Blanc*, p. 267), a climb which, I believe, has only once been repeated.

THE GRAND CORNIER AND THE DENT BLANCHE . . (A. B. W. K.) *p.* 394

The rocks in the foreground are those of the Diablons. The highest peak in the distance is the Dent Blanche, and to the right of it the Grand Cornier. Further to the right stretches the great snow-field of the upper Moiry Glacier and the Steinbock ridge; the pyramidal peak to the extreme right, seen against the snow, being the Pigne de l'Allée, from which the heading to Chapter VIII. was taken.

PLATE XX. THE TIEFENMATTEN JOCH . . (A. B. W. K.) *to face p.* 404

The view is taken from almost the same point as Plate X., but looking south-west instead of south-east, the point being just at the top of the lower of the two ice-falls mentioned in the text. The snow-field which forms the foreground of the photograph had, in 1864, on its left (under the cliffs of the Dent d'Hérens), what Moore calls the 'small plateau covered almost from side to side with avalanche débris.' The avalanche débris is still sufficiently in evidence, as the view shows very clearly. The passage to the upper plateau, at the

left of the ice-fall, shows itself to have been also avalanche-swept at the time of my visit, in fact by no means a place to be crossed except in the very earliest morning. The 'bulging mass of séracs,' just to the right of the pass and on the side of the Tête de Valpelline, seems to have retained its original position and character unaltered for thirty-five years, and immediately under it are still several obvious débris bridges over the bergschrund, which look no more inviting now than they did to Moore—the slope is also still visibly scored with avalanche gullies. The 'patch of crumbling rock,' however, by the side of the séracs, is not now visible.

THE AIGUILLE NOIRE DE PÉTÉRET . . (J. NORMAN COLLIE) *p.* 412

The view is taken from the Col du Géant, but corresponds in its general nature with the view from the slopes above the Brenva Glacier spoken of by Moore on p. 384. To the left of the Aiguille are seen the mountains of the Tarentaise, to the right the oddly shaped rocks known as the *Dames Anglaises*, followed by the southern slopes of the Aiguille Blanche de Pétéret. The Brenva Glacier lies in the hollow below these peaks, and beyond the dark rock ridge in the middle of the photograph.

The Dames Anglaises were ascended for the first time during the past autumn by H.R.H. the Duke of the Abruzzi. The Aiguilles de Pétéret have both been climbed, but very seldom. It was on the Aiguille Blanche that Mr. Frank Balfour lost his life in 1882.

THE SUMMIT OF MONT BLANC . . . (J. NORMAN COLLIE) *p.* 419

A photograph taken on the Dôme du Goûter just as the rising sun struck the summit ridge of the mountain. It shows the whole extent of the ridge from the Dôme, across the Bosses du Dromadaire, to the Calotte itself. Moore traversed the whole of this ridge in his ascent with Almer (Chapter VI.), and in his ascent by the Miage Glacier (Chapter XIX.) he struck it about half-way between the Bosses and the summit.

THE DÔME DU GOÛTER . . . . . (A. B. W. K.) *p.* 428

The Dôme and Aiguille du Goûter show above the slopes of the Midi. Below is the level ridge of the Petit Charmoz and the Mer de Glace. The distant view is very similar to that which heads Chapter VI.

PLATE XXI. THE SUMMIT OF THE MÖNCH (HENRY SPEYER) *to face p.* 434

This beautiful view of the details of a snow peak was taken by Mr. Speyer on descending by the route by which Moore's descent

was made, and from a point about 150 yards east of the summit. The actual peak is the highest point in the view, the further ridge extending from it to the right is the back of the summit ridge as seen from the Scheidegg (the camera having been pointed a little north of west), which further down leads to the Eiger Joch (Plate XVI.). The slopes on the left are those—'which might be called precipitous'—leading down to the Jungfrau-Firn—the head of the Aletsch Glacier. The short line of footsteps on the extreme right are those of a guide who had gone to inspect the cornice, obviously very close to the place where the accident occurred which so nearly cost Moore's whole party their lives. The extreme steepness of the rocks below the cornice is sufficiently indicated by the little piece which is visible behind the cornice where it bends upwards.

LIST OF MAPS

THE ALPS IN 1864

CHAPTER I

THE AIGUILLES D'ARVES

Saturday, 18*th June*.—I left Brighton at 5 p.m., reached Redhill Junction at 5.45, remained there till 7.6, when the Dover train came up and deposited me at the latter place at 9.20; I went forthwith on board the boat, and managed to get into a sleepy state before it sailed, at 10.35.

Sunday, 19*th June*.—The fates were propitious, the sea was calm, and the boat reached Calais at 0.35 a.m. without my having been compelled to pay the usual tribute to Neptune. On arriving at Paris at 7.20 I went to the Hotel de France et d'Angleterre, in the Rue des Filles St. Thomas, where I found the Walkers and Morshead, with whom was a young fellow of the name of Gaskell, who had been intrusted to Morshead for introduction to the High Alps. The day passed as pleasantly as a day in Paris always does. We astonished

'Mossoo' by appearing in all our Alpine glory in the Bois de Boulogne, and, at intervals, prepared ourselves for hardships to come by the consumption of large quantities of strawberries and cream ice. William Mathews and his party were at Meurice's, *en route* to the Pyrenees, so that, altogether, the Alpine Club was well represented. After dinner Morshead started for Basle, having arranged to meet me at Evolena on or about the 9th July; and at 8.40 the rest of the party left for Chambéry and St. Michel. We had hoped to keep the carriage to ourselves, but, just as the train was on the point of starting, we were joined by a most remarkable-looking female, English, tolerably young, tolerably good-looking, arrayed, as to her head, in a pork-pie hat with a huge red feather, solitary, and encumbered with multitudinous packages. I believe that each member of our party passed a large portion of the night in speculating about this mysterious stranger. We compared notes in the morning, but utterly failed in arriving at a satisfactory conclusion, so finally christened her the 'Enigma,' by which name she goes unto this day. The weather all day had been threatening, but, as the night advanced, the clouds disappeared until the full moon was left shining in a perfectly clear sky.

Monday, 20th June.—No one of us did much in the way of sleep, and the usual scalding coffee at Mâcon roused us thoroughly. Culoz was reached at 8.48; and there, standing ready to meet us, were Whymper and our old friends Christian Almer and Melchior Anderegg,—Melchior attached to Mr. and Miss Walker, and Almer to Horace Walker and myself. Leaving Culoz at 9.12, we reached Chambéry at 10.0, where Mr. and Miss Walker, with Melchior, left us *en route* for the Grande Chartreuse. At Chamousset we picked up Whymper's guide, Michel Croz of Chamouni, a large, pleasant-looking man, whom we forthwith introduced to Almer; but, as each was ignorant of a single word of the other's language, their mutual communications were somewhat limited. The country through which the line passes is picturesque, but the heat and dust made the journey tedious; and in spite of some entertaining conversation and behaviour on the part of the 'Enigma,' who

was bound for Turin, we were all glad to reach St. Michel, the present terminus of the line, at 12.10 p.m. Here there was much to be done; baggage had to be arranged, provision laid in, and the last tolerable dinner we had to expect for some time consumed. This latter operation was performed satisfactorily at the excellent, but expensive, restaurant attached to the station. And finally, at 2.40 p.m., the greater portion of our baggage being left to await our return, which might be expected in about ten days, we turned our backs upon civilisation, and plunged into the wilds. An ice-axe is a rare spectacle on the Cenis road, and many curious glances were cast at our party as we passed along the straggling main street of St. Michel. We had no very precise notion where we should pass the night, our intention being to ascend the Combe de Valloire as long as daylight lasted, and trust to find an opportune chalet at nightfall. This Combe de Valloire opens out on the left bank of the Arc, just opposite to St. Michel,[1] but terminates in a mere gorge through which there is no path. To get at all into the inhabited part of the valley it is necessary to climb to a great height over the intervening hill-side, an arrangement which appears common to many of the lateral valleys of this district, and cannot be too strongly condemned. Having crossed the Arc, here a considerable stream, by a substantial stone bridge, we at once commenced the ascent. The path, after passing some scattered houses, mounted rapidly through meadows and luxuriant woods, which, however, afforded but scanty protection from the sun, whose scorching beams were pouring down upon us from an almost cloudless sky. We were all more or less heavily laden, and to luckless individuals fresh from a sedentary life in England, the walk was as trying a one for a first essay as could well have been selected. Nevertheless, with occasional short halts, and a draught from a tolerable spring in a shady nook, we managed to toil upwards, and were soon astonished to see at how great a depth below the valley lay. The scenery throughout was charming, and the path, though steep, good, and apparently much frequented, as we passed several parties of natives on their way down. In due course the woods were left behind, and a stiff pull over the

open ground above them brought us at 4.45 to the crest of the ridge, marked by a small chapel and three very tall crosses. The ascent from St. Michel, itself 2533 feet above the sea, cannot be less than 3000 feet.[2]

The view from this point, which may conveniently be called Col de Valloire, was unexpectedly fine. Looking back, at our feet lay St. Michel, plainly visible, backed by the extensive and not very interesting-looking valley leading up to the Col des Encombres, to the left of which was a rocky peak, with curiously contorted strata. But the prospect in the opposite direction absorbed the larger share of our regards. Looking straight up the long valley of Valloire, and over the ridge of the Col du Galibier at its head, our attention was drawn to a solitary summit, towering upwards into the sky. Croz instantly recognised it as the Monarch of the Dauphiné Alps, the Pic des Ecrins, 13,462 feet in height, whose conquest we hoped to effect. The face of the mountain above the Glacier Blanc, which the explorations of Messrs. Bonney, Mathews, and Tuckett had determined to be the only one offering any chance of a successful attack, was turned towards us, and though the distance was much too great to allow us to form any reliable opinion of our chances of victory, yet the little we could make out with the aid of my glass was the reverse of encouraging. The final peak appeared to be protected by a huge bergschrund, running completely across the slope below it, and above this obstacle was a wall of ice and rock, arranged to a certain extent on the couloir pattern, and evidently very steep. We were unable to trace a single couloir right up to the arête; every one stopped short, leaving an interval of rock, slightly sprinkled with snow, the ascent of which might or might not be practicable. The arêtes right and left of the summit appeared to be fearfully thin and serrated; in fact as unpromising as possible. One thing only was clear, that the mountain would prove no easy conquest. And having arrived at this conclusion, we turned to another part of the view in which we were almost as much interested. Some distance up the valley was the village of Valloire, built at the base of a curious sort of hillock. To the right of, and far behind, the village, towered a singular group

of peaks which could be nothing but the Aiguilles d'Arves, a nearer acquaintance with which we hoped to make on the morrow. The most conspicuous point visible was one of the most remarkable peaks I have ever seen—a vast dome of rock, sliced off on one side as though the operation had been performed with a knife, with an enormous excrescence on the top of the dome, strongly resembling the top of a pepper-box. To the left of this *lusus naturæ*, and rather in advance of it, was a snow-peak, which I imagined to be the highest summit of the group. Whymper, however, disagreed with me, and (rightly, as afterwards appeared) assigned the supremacy to a second dome of rock, which was rather imperfectly seen between this snow-peak and the pepper-box above mentioned, to which latter, so far as apparent difficulty of access went, it bore a striking resemblance. From this group three lateral valleys radiated, and all finally opened out into the main valley of Valloire. After some discussion, we determined that the base of the Aiguilles might be most advantageously approached by the most southerly of these three valleys, which bears on the Sardinian map the appropriate name of Vallon des Aiguilles d'Arves. Its entrance appeared to be some distance above Valloire, but we resolved to use every exertion to get at least so far before nightfall.

To accomplish this there was no time to lose, so at 5.5 we picked up our traps and commenced the descent, the path being better and decidedly less steep than on the side of St. Michel. The views of the valley in descending were charming, and the curious ravine in which it terminates was well seen. After passing two considerable villages, we reached Valloire, in the bottom of the valley, at 5.45, and went to a rough little inn on the 'place,' where we hoped to lay in provisions. The resources of the establishment proved to be an unlimited supply of good bread, cheese, and red wine, eggs but no meat. In addition to satisfying the present pangs of hunger we had to superintend the preparation of the stores to be taken with us, as Almer, owing to his ignorance of the language, was helpless, and Croz was rather apathetic. The people of the inn were excessively civil and anxious to supply our wants, but

scarcely seemed to appreciate the value of time to us. The egg-boiling was a very long process, so, while it was going on, we went out into the 'place,' where the curé and some members of the local aristocracy were playing at bowls under difficulties on a piece of ground tilted up at a considerable angle, and of the roughest and most uneven character. All the preparations being at length completed, we left Valloire at 6.50. The path now crossed to the left bank of the stream, and wound through a picturesque gorge between the curious hillock before mentioned, at the base of which the village is built, and the side of the valley. On the top of this hillock, in a very striking position, is a large chapel, the ascent to which must rather take it out of those natives whose piety may induce them to visit it. The evening was fine, and the walk on very pleasant. At 7.40 we came to a small village, and obtained from one of the inhabitants, the colour of whose nose bore witness that its owner had certainly not taken the pledge, the information that there were occupied chalets at the entrance of the Vallon des Aiguilles d'Arves, and also directions how to reach them. In accordance with these instructions we shortly left the main track, and commenced a rapid ascent over the shoulder of the hill that intervened between us and the Vallon. The track was both rough and steep, and the distance greater than we had anticipated. Corner after corner was turned, but there was no sign of the wished-for huts. Darkness, too, was coming on apace, and it was, therefore, with no small satisfaction that we at length saw a group of buildings looming through the gloom, and at 8.25 reached our destination. The chalets were situated at the entrance of, but fairly within, the Vallon, which opens out into the main Valley of Valloire opposite to, but at a higher level than, the hamlet of Bonnenuit. The woman in charge received us civilly, and showed us a large barn, furnished with a fair quantity of hay, where we could pass the night. She only insisted on one condition, that we should not introduce any light into the place for fear of setting fire to the loose hay. Her anxiety on this score was remarkable, and we had to promise emphatically over and over again, both to go to bed and get up in the dark, before she was satisfied. That point

settled, she took us to another chalet, and warmed a quantity of milk, with which and our own stores we made a very satisfactory supper. Hunger appeased, there was no temptation to remain up, so we soon retired to our dormitory, and took up our positions side by side on the hay, through which the hard boards made themselves painfully perceptible. Of ventilation also there was more than enough, and we were not at all too warm. Possibly owing to these two circumstances it was long before I fell asleep, notwithstanding that I had passed the two previous nights in travelling. But I at last dropped off, and doubtless soon commenced to swell the nasal uproar which had been for some time proceeding from my companions.

Tuesday, 21st June.—However uncomfortable a bed or its substitute may be, there is one moment when it appears luxurious, and that is, when, at an unearthly hour of the morning, one is called upon to leave it. So it came to pass, that, after a restless and uncomfortable night, when, at about 3.0 a.m. the voice of Almer proclaimed the break of day, and the consequent necessity of rising, I was very loth to obey his summons, which was not more welcome to the other members of the party. However we all turned up, and performed our toilette, an operation neither long nor extensive, consisting merely of a vigorous shake in order to get rid of the loose particles of hay that were making themselves felt on various parts of our persons. Having breakfasted on bread and butter and cold milk, we paid our hostess a very moderate sum, bade her farewell, and at 3.55 started on our way, accompanied (not as guide) by an ill-favoured native whose business called him some distance up the Vallon. It was a lovely morning, the sky cloudless, and the air so deliciously fresh that it did more in a few moments to restore our energies than had been accomplished by our night's rest. The valley for some distance in front was perfectly level, and the walking over luxuriant pastures was very pleasant. On our right was a ridge, separating us from a similar valley; in fact the central of the three glens which radiate from the Aiguilles d'Arves. The most conspicuous point in this ridge was the snow-peak[3] which I had yesterday from the Col de Valloire supposed to be the highest of the

Aiguilles, most erroneously, however, for it now showed itself in its true character as comparatively insignificant, and merely an outlier of the main group. The ridge on our left, separating us, I imagine, from the valley leading to La Grave by the Col de Goléon, was far more lofty, especially at its further end, where it circled round to the head of our valley. From its general level three points rose conspicuous, close to each other, which are called on the French map 'Les trois Pointes d'Aiguilles.' The Aiguilles d'Arves themselves were invisible, hidden by a turn in the valley. At 4.30 we left the pastures behind us, and commenced a steady ascent over a singular expanse of stone-covered ground, which was scored in a remarkable way by deep channels, undoubtedly cut by torrents descending from 'Les trois Pointes.' These channels ran transverse to our line of march, and as it was necessary to descend into and cross each one in succession, the walking was very laborious. This lasted an hour, and brought us at 5.30 to the last bit of level very near the head of the valley, where it became necessary to make up our minds as to the exact course we would follow. We, therefore, halted for the double purpose of looking about us and giving Whymper, who was not well, an opportunity of recovering himself.

Our immediate object was to make the ascent of the highest of the three Aiguilles d'Arves, and descend either towards St. Jean d'Arves, or better still, if possible, direct to La Grave, on the high road of the Lautaret. The three peaks are close together, springing from an elevated ridge, the general direction of which is, speaking roughly, north and south. The southern peak is the highest, attaining 11,529 feet, but it only very slightly exceeds the central summit, which, by the same authority, is 11,513 feet. Neither on the French nor Sardinian maps is there any sign of the third or northern peak, although its height can be little inferior to that of its brethren, while from most points of view it is equally conspicuous.

On the Sardinian map, indeed, only one summit is depicted, just north of the watershed between the Maurienne and Dauphiné, not far out of its true position. We knew nothing about the Aiguilles from personal knowledge, and had chosen

THE AIGUILLES D'ARVES FROM THE EAST.

our line of attack in consequence of having read in Joanne's *Itinéraire du Dauphiné* a somewhat vague account of an ascent of what, from the height given, appeared to be the central peak from the side of St. Jean d'Arves, which wound up with the statement that it was possible to get down to Valloire. We, therefore, concluded that, in the event of the highest point proving inaccessible, we should be able to climb the second, and certainly descend on the other side by a route, which Joanne stated to be '*relativement facile.*' The idea that the account in Joanne might be mythical and both peaks inaccessible had never entered our heads, and we were, therefore, somewhat taken aback at the scene displayed to our admiring eyes from our halting-place at the head of the Vallon des Aiguilles d'Arves. As we sat, looking about due north, on our left towered the two highest of the Aiguilles, apparently so equal in height that, but for the map, we should have been at a loss to determine their relative claims to supremacy. I never saw more remarkable peaks than those two perfectly symmetrical piles of rock, which were so like each other that they might have been cast in the same mould. They rise abruptly from a ridge which circles round from 'Les trois Pointes'; over this ridge the ill-favoured native, who had left us some time before, had declared that there was an easy pass direct to La Grave. It may be *possible* to get over, but there is not a single well-marked depression in the ridge, the general level of which cannot be much under 10,000 feet, while the rocks which fall from its summit to the valley below are so precipitous and smooth, that we all, Almer and Michel included, doubted the practicability of ascending them at any point. Of one thing we were certain, that the native had, after the manner of the country, lied, and that whether or not it might be possible to force a passage, no one had ever crossed that way to or from La Grave. Between the Aiguilles, peaks 1 and 2, was a most fascinating gap of no very great width from which fell towards the valley a small but beautiful glacier. It was a perfect reproduction in miniature of its larger brethren in other parts of the Alps. Below the gap was a formidably steep ice-wall, cut off by the orthodox bergschrund from the névé. This latter in due course ended in an

ice-fall, very steep and shattered, which terminated on low cliffs, succeeded by the usual slopes of rock, stones, and grass, on which at this early period of the season there was a good deal of snow. To the north of peak No. 2 a ridge circled round towards the snow-peak before mentioned, which was now almost in front of us, but a ridge much more practicable than the one above described. Slopes of considerable steepness led up to a series of extensive snow-fields, which it appeared easy to follow up to their origin at any point. It will be understood from the above description that the ridge at the head of the valley sweeps round in an almost perfect semicircle, the Aiguilles d'Arves being in the centre of the arc, while one of 'Les trois Pointes' and the snow-peak face each other at either extremity of the chord.

A very few moments convinced us that, as regarded the Aiguilles, the southern arête and the eastern face of peak No. 1 were equally inaccessible, while the northern arête that fell to the gap above the glacier was a simple precipice. The gap itself we thought accessible with difficulty, as the glacier and ice-wall leading up to it promised a tough piece of work, while, when it should be attained, the southern arête of peak No. 2 appeared no less unpromising than the northern arête of peak No. 1. The eastern face, too, of the latter offered as little prospect of success as that of its companion; and, but for one circumstance, we should at once have given up all hope of reaching its summit. This was, that from our point of view we could not see the true northern arête, which falls to the ridge connecting the central peak with the northern or lowest of the Aiguilles No. 3; the arête, ridge, and peak were all invisible, masked by the most advanced portion of the snow-fields before mentioned. Now, it was by this northern arête that I gathered from Joanne the ascent had been made, although the vagueness of the description, combined with the total absence of any reliable map, rendered it impossible to be certain. However, we were all willing to be persuaded that such was really the case, and as the Aiguilles were evidently inaccessible on all other visible sides, we determined to make for the gap between peaks 2 and 3, which, although invisible, we knew must exist, and try

our luck from there, never doubting that in any event we should be able to get down on the side of St. Jean d'Arves. Accordingly, at 6.10 we resumed our march, steering considerably to the right towards my deceptive snow-peak, under which it seemed possible to get on to the snow with less difficulty than more to the left under Aiguille No. 2, where the supporting cliffs appeared more precipitous. Steep slopes of scanty grass were succeeded by still steeper ones of stones covered here and there with patches of the winter's snow. Occasionally some very faint traces of a track, probably made by sheep or goats, were visible, but never for long, and we had to select for ourselves the most eligible way. After keeping to the right for some time and mounting to a considerable height, we began working round to the left, and finally at 6.50 reached the snow, on which the sun was playing with full force, warning us of the necessity for spectacles and gaiters. During a halt of ten minutes these were put on, and thus, fully equipped for work, we bent our knees to tackle the apparently endless slopes in front of us, making for a point immediately to the right of Aiguille No. 2. The slopes were steep, the rays of the sun hot, and we heavily laden, so that, although there were no difficulties to be overcome, the work was severe, and whoever of the two men happened to be pounding the steps turned round frequently to rest a moment and survey the view which was rapidly opening out behind us. At length, after passing over a patch of shattered rocks, the last upward step was taken, and at 8.45 we stood in a gap some fifty yards wide between Aiguilles Nos. 2 and 3.

Our first glance was down on the other side, and our first impression was that we were regularly 'sold,' and that we should have to return the way we came. From our feet the rocks fell in an absolute precipice, apparently cutting us off completely from the smiling valley, or rather combination of valleys, that lay between us and the fine group of the Grandes Rousses, the highest of which Croz greeted as an old friend. A careful inspection, however, showed us two very steep snow couloirs, by either of which we thought it might be practicable to effect the descent; so, dismissing that question for the present, we turned our attention to Aiguille No. 2. The nature

of the descent towards the valley of St. Jean d'Arves had convinced us at once that the ascent referred to by Joanne could not have been made from our present position, as he speaks of gentle pastures being followed to the very foot of the peak, whereas the nearest pastures were some two thousand feet below at the foot of a precipice. We were, therefore, not particularly astonished on looking up at the Aiguille which rose immediately above us to find that its northern face offered scarcely more prospect of success than its southern, eastern, and western sides. We estimated the gap in which we were sitting to be about 10,200 feet in height, so that the summit of No. 2 was still 1300 feet above us. It might have been possible to scramble up for some distance, but not to attain a height sufficiently great to repay us for the attendant risk, which would have been considerable, the narrow ledges along and up which we must have gone being covered with a thin layer of snow. Almer and Michel were strongly opposed to such a proceeding; so, having determined at a glance that the lowest of the Aiguilles, No. 3, was from this side as inaccessible as his brethren, we bestowed a malediction on Joanne, and settled ourselves on some loose rocks to admire the gorgeous view that lay extended before us. Looking east, the centre of the picture was occupied by Monte Viso, at a great distance, towering over numberless intervening ridges from which numerous other fine peaks rose, which, however, shrank into comparative insignificance in the presence of their chief. To the left of the Viso was the great mass of the Tarantaise Alps, a *terra incognita* to all of us except Croz. Of all the crowd of peaks the only one we identified to our satisfaction was the Dent Parrachée, on the other side of the valley of the Arc, with a great field of glacier at its base, no doubt the Glacier de la Vanoise. To the right of the Viso, but very much nearer to our position, our delighted eyes were regaled with a cloudless view of a considerable portion of the great Dauphiné group of Alps. First in importance and in interest towered the monarch of the group, the Pic des Ecrins, looking as impracticable as from the more distant Col de Valloire. Long and carefully we examined the monster, and when the glass was finally laid down, our hopes of

ever being able to attain its summit were rather faint. Behind the Ecrins was the double-headed Pelvoux, presenting to us the magnificent precipice of black rock, only streaked here and there with snow, which falls from the very top of the mountain to the Glacier Noir. Even more imposing and striking in form was the peak to its immediate right, which has been likened by some to a gothic cathedral, the highest point of the so-called Crête de Pelvoux, 12,845 feet in height. An attempt to reach its summit would give some very pretty practice in rock-work and the enterprising climber a remarkably good chance of breaking his neck. The last peak visible in this direction was the Meije, in height only inferior to the Ecrins, just seen over the shoulder of Aiguille No. 2, which shut out from us the Brêche, Rateau, and Grand Glacier du Lans. Looking west, the view was less remarkable, the only object of interest being the long range of the Grandes Rousses, containing two summits of apparently equal height, and sending down considerable glaciers towards the valley of St. Jean d'Arves which lay extended in all its beauty below us.

The weather was lovely, and the temperature agreeably warm; there was no object in a very early arrival in the valley below, so that we lay basking in the sun in a state of bliss and enjoying the view until 11.30, when we turned to descend, having first christened the col, Col des Aiguilles d'Arves. The two couloirs from which we had to select a way were both equally unpromising in appearance, very steep, and with ugly patches of rock cropping here and there out of the snow, suggesting a rough reception in case of a slip. After some discussion we selected the one nearest to Aiguille No. 3, and, having put on the rope, started, Croz leading, while Almer brought up the rear. Near the top the snow was perilously thin over the rocks, causing the steps to be very insecure, and suggesting the idea that later in the season, when there would probably be no snow at all, the ascent or descent might be quite impracticable, while the rocks right and left offered no alternative route.* Lower

* Later in the same year Mr. C. Oakley made an unsuccessful attempt to ascend the central peak of the Aiguilles d'Arves from this col. At that time the descent on the side of St. Jean d'Arves did not appear practicable, the couloir by which we descended being then bare of snow.[4]

down, however, the snow was deeper, and soft enough to give good footing, so that in spite of its great steepness, which in places must have been at least 55°, we made good progress. About two-thirds of the way down the couloir suddenly narrowed to a width of certainly not more than two feet, and at the same time took a sharp twist in a remarkable manner to the right, where we had to pass with more than ordinary caution. But once through this curious hole matters mended, and the couloir gradually widened out into an ordinary steep slope of snow. On getting clear of the rocks, we opened out to the right one of the most superb views of the chain of Mont Blanc I ever saw. From the Col du Bonhomme to the Col Ferret every part of the range was clear, while Mont Blanc himself soared in the centre above all his satellites, an object of surpassing magnificence. This glorious scene was a complete surprise, and lent an unexpected interest to this side of the pass. The sight of the long slope of snow below us, of course, suggested the question of a glissade, but neither of the guides quite approved the notion, considering the slope too steep. However, after some discussion, Walker, whose ability at a glissade is extraordinary, started off alone, standing, and soon reached the bottom safely. Almer, Whymper, and myself followed, ignominiously sitting down, while Croz declined both ways, objecting to our mode because it would wet his trousers. We then, at 12.30, got off the snow, the descent from the col having occupied exactly an hour, and halted for twenty minutes on a level plain covered with some huge rocks, and watered by the streams caused by the fast-melting snow. Looking up from here the couloir by which we had descended appeared so precipitous that no one would have supposed it possible to traverse it, while the three Aiguilles displayed themselves in all their glory. Resuming our way, we passed along the top of a very curious grass-grown ridge, suspiciously like an old moraine, and then, bearing well to the left, pushed rapidly on over steep stone-covered slopes, succeeded by thin grass, until at 1.25 p.m. we came to a group of inhabited chalets situated at a considerable height above the Combe de la Saussaz which forms the head of one of the many tributary glens that unite to form the main valley of St. Jean

d'Arves. Three women appeared to be the only inhabitants of the place; they were sitting outside one of the chalets busily engaged with some needlework, and beyond staring in astonishment at our appearance, took not the slightest notice of us, not uttering a syllable. Our request for milk was at first received with solemn silence, as if they did not understand what we wanted; but after some time an idea of what we meant appeared to dawn upon them, and copious supplies were brought, and quickly consumed. On making inquiries about night-quarters, we with some difficulty elicited that there were some chalets down in the Combe de la Saussaz, where we could probably sleep; so, as they would be more convenient for the morrow's journey, and there was little temptation to prefer those of our informants, who on their part seemed decidedly anxious to get rid of us, we determined to descend to them. Whymper, however, was anxious to make a sketch of Aiguilles and Col, so, leaving the guides at the chalets, we three mounted a certain distance up a grassy hill behind until a favourable spot was found, where Whymper set to work, Walker and I going a few yards higher up. It would have been difficult to find a more eligible position from which to contemplate the Aiguilles and the range running from them round the head of the Combe de la Saussaz, and I spent some time in a careful examination of the group, which for its height is certainly one of the most remarkable and picturesque in the Alps. On the French map the word 'signal' is placed against Peak No. 2, but neither from our present position, nor the col, nor the valley on the other side, could any of us detect anything on the summit at all resembling the work of human hands. Here for the first time I got a good view of Aiguille No. 3, which is double-headed, and as precipitous as the other two, but more massive and less graceful in form. I puzzled myself in vain to trace out any practicable line of ascent up either of the Aiguilles, but the north side of No. 3 was invisible; and I finally came to the conclusion that if the account in Joanne is not (as I can scarcely believe it is) entirely mythical, it refers to Peak No. 3, to which the height of No. 2 has been erroneously given. But that this is, as he says, '*relativement*

facile' I much doubt. The heat was scorching, and Walker's replies to my observations degenerated from sentences into monosyllables, and from monosyllables into snores. Evil example is contagious; and, so soon as I had satisfied myself about the Aiguilles, I stretched myself on the grass, with a handkerchief over my face, and fell asleep, until in due course the slumbers of both of us were broken by the voice of Whymper, proclaiming that he had finished his sketch,[5] and was ready to go down. It was 4.0 p.m., so, running down to the chalets, we stirred up the guides, and, after another draught of milk, resumed our journey at 4.25. A steep path led down towards the Combe de la Saussaz, and then, keeping to the right, brought us, at 4.50, to a second group of chalets, situated on a grassy knoll at a considerable height above the gorge through which the torrent flows before joining the main stream, which comes down from the Col des Infernets. The approach was unpromising through a sea of filth, but never were first appearances more deceptive; for, once past this unpleasant moat, we were received with the utmost cordiality by the two honest-looking women in charge, and were shown for night-quarters a large clean barn, with an abundance of soft hay. Having deposited our traps, we went into the chalet, a model of cleanliness, to superintend the making of tea, and during the operation endeavoured to get some information about the country from our excellent hostesses; but, with every desire on their part to communicate all they knew, we could not learn much, except that the chalets were the Chalets de la Saussaz, and those higher up the Chalets de Rieublanc, and also that there was such a pass to La Grave as the Col de Martignare, which was passable for mules, and, therefore, presumably easy. We fared sumptuously on tea and quantities of milk, hot and cold, helped down by bread and butter from our own stores, and nothing could have surpassed the civility with which we were attended to. Tea over, I went to the edge of the grassy knoll, overhanging the gorge, the black shaly cliffs on the other side of which were remarkable, and sat there for some time, returning to witness a most gorgeous sunset, and one of the finest bits of colour on the Aiguilles d'Arves I ever saw. The

air soon became chilly, so we retired to our barn, and, burrowing in the soft hay, were, with the addition of our plaids, shortly warm enough, and soon slept the sleep of the just.

NOTES TO CHAPTER I

[1] The maps of this district, which were extremely imperfect in 1864, still leave much to be desired. The best are probably the official French sheets of the *Carte Vicinale*, on a scale of 1 : 100,000, or about five-eighths of an inch to the mile. The sheet *Modane* covers the ground from St. Michel to the Aiguilles d'Arves, *le Bourg-d'Oisans* from the Aiguilles to the Brèche de la Meije, *Valbonnais* gives la Bérarde and the Etançons Valley, while *Briançon* shows the Ecrins and the country east and south of it. The mountainous district south of La Grave and round the Pelvoux is also well shown in the four small maps (1 : 100,000) published as 'Maps of the Dauphiny Alps,' in connection with the *Central Alps of the Dauphiny* (Conway and Coolidge's Climbers' Guides).

It is singular that although the 'Vallon des Aiguilles d'Arves' is shown on the French 1 : 100,000 sheet (*Modane*) the Aiguilles themselves are not named, nor indeed in any distinct way indicated on the map. Their actual position is along a ridge running nearly north and south on the extreme western edge of the sheet mentioned, and immediately above and to the east of a little lake which is shown below the Aiguille d'Epaisseur, but of which I myself saw no sign.

[2] The height of the Col de Valloire, at the 'Chapelle des trois Croix,' is 5250 feet. As to this road see further note 3 to chapter vi.

[3] It must be remembered that Moore commenced his journey in the middle of June. Later in the year the view is entirely different, and in August the 'snow-peak' was, when I last saw it, practically bare rock. It is, I have no doubt, the Aiguille de l'Epaisseur.

[4] The later history of the Aiguilles d'Arves, from the mountaineering point of view, has been as follows :—

The south Aiguille, 11,497 feet, was first ascended by Mr. Coolidge, with the Almers, in 1878, from the Col Lombard. The route lies up the face on the right of the Aiguille as seen in Plate II. until the rocky teeth on the south-east (right-hand) arête are reached. The most difficult part of the climb is round from the back of these upwards ; it is seen, but much foreshortened, in Plate I. This point can also be reached from the glacier north of the peak by the rocks seen in Plate I. The peak appears to be quite inaccessible from the Col between it and the central Aiguille, and this Col itself is said to have been completely traversed only once.

The central Aiguille, 11,513 feet, is now believed to have been climbed as long ago as September 1839 by three hunters named Magnin, and the history of this ascent, having been discovered, was published by the Section Maurienne

of the French Alpine Club in 1878. The first ascent in modern times was by Mr. Coolidge in 1874. The ascent was made from the Col des Aiguilles d'Arves, across the rocky ridge and faces seen in Plate I. The mountain has also been climbed from the Col to the south of it and from the glaciers on each side of it; all these routes are seen in Plate I. The central Aiguille is the one carrying the 'pepper-box' mentioned by Moore. There has been some controversy as to whether it is or is not higher than the south Aiguille, but the great majority of climbers believe that it is the higher.

[6] This sketch is the well-known one on p. 185 (1st Edition) of Mr. Whymper's *Scrambles*. A photograph which I have taken from nearly the same point bears testimony—had it been needed—to the accuracy as well as the beauty of Mr. Whymper's work. For any travellers following in Moore's steps it may be noted that it is much better to sleep at Rieublanc than lower down. A clean hay bed can be obtained, and great civility, but no provisions except milk. My pleasure at hearing that coffee was to be had was damped by finding that the coffee was in the form of beans, and the nearest grinding apparatus was at another chalet three hours away!

CHAPTER II

THE AIGUILLE DE LA SAUSSAZ (BEC DU GRENIER[1])

Wednesday, 22nd June.—Our couches were luxurious, and even our guides experienced an unusual reluctance to get up, and in consequence did not call us till 3.0 a.m., by which time we had hoped to start. However, I cannot honestly say that the additional hour's rest was at all unwelcome. After a copious supply of hot milk for breakfast, we had a most desperate struggle with our hostesses to persuade them to accept some remuneration for the good fare and accommodation we had had. For some time they obstinately refused to take anything, but we at length succeeded in forcing upon them the merest trifle; and, finally, at 4.15 took our departure under a shower of good wishes, and with many injunctions to come again if we were ever in the neighbourhood.

Our object now was to cross to La Grave on the high road of the Lautaret, from Grenoble to Briançon, and, *en route*, ascend some point sufficiently high to give us a good view of the Dauphiné Alps in general, and the grand chain of the Meije in

particular. Before leaving England, a careful preliminary study of Joanne had elicited the fact that the shortest route from La Saussaz to La Grave was by the Col de Martignare, which crosses the chain to the east of the better known Col des Infernets; also, that from the aforesaid Col it was possible with very little difficulty to ascend a lofty summit, called the Bec du Grenier, *or* Aiguille du Goléon. On referring, however, to the Sardinian survey, I found there, depicted to the east of the Col de Martignare, not *one* peak bearing the above two names, but *two* distinct summits; one just above the Col, the Bec du Grenier, the height of which is not stated, the other still further to the east, and somewhat to the south of the watershed between the Maurienne and Dauphiné, the Aiguille du Goléon, 3429 mètres, or 11,251 English feet in height, with a very considerable glacier — the Glacier Lombard — between the two. On the French map, on the other hand, neither of the above names is to be found, but a peak called 'Aiguille de la Sausse,' 3321 mètres, or 10,897 feet in height is placed in the position assigned to the Bec du Grenier in the Sardinian map, while, further to the east, is a second and lower nameless peak, 3304 mètres, or 10,841 feet, not at all in the position given to the Aiguille du Goléon, of which and the glacier Lombard there is not a sign. All this was very puzzling and unsatisfactory, but, as we had no doubt of being able to climb some point to the east of the Col de Martignare, we determined to make that Col the basis of our operations.

Leaving the chalets, we followed a faint track towards the head of the Combe de la Saussaz, and soon opened out as savage a scene as can well be conceived, From the southern Aiguille d'Arves a great wall of shaly precipices ran, speaking roughly, in a south-westerly direction, for a considerable distance. From this wall, two peaks, built on much the same pattern as the Aiguilles, rose pre-eminent. Suddenly the ridge, abandoning its previous direction, turned due west, forming the watershed between the Maurienne and Dauphiné, and falling in a series of precipitous slopes to the valley below. On this portion of the ridge two rocky peaks were also conspicuous, and at the summit of one of them we hoped eventually to arrive. Standing at the

entrance of the Combe de la Saussaz, and looking south, the first section of the ridge above described was on our left—straight in front of us was the second section—while on our right was an immense buttress, projecting from the latter, crowned with pastures, which appeared completely cut off in the most extraordinary manner from the main valley in which we were.

The Combe de la Saussaz was thus shut in by three walls of cliff, on none of which was there a sign of vegetation. On all sides the eye was met by exceedingly steep slopes of hard black shale, or rather grit, split up into numerous ravines, and seamed with immensely long snow couloirs. We saw from here that the descent on this side from the gap, between peaks Nos. 1 and 2 of the Aiguilles d'Arves, would have been long, difficult, and laborious, lying for a long distance over slopes of the above nature, steep throughout, and, low down, almost perpendicular. After traversing a dreary expanse of stones, we got on to the most enormous bed of avalanche snow I ever saw. It stretched away as a great hummocky mass to an immense distance, and, I should think, can never be entirely melted, even late in the summer, as in such a profound gorge the sun can play on it for only a very brief period every day. After advancing over this for some time, we held a consultation as to the best course to pursue, in order to get on to the main ridge in front of us. Whymper suggested pushing straight forwards and climbing up the steep rocks and snow couloirs so as to hit the ridge very high up, as near as possible to the most easterly of the two peaks we hoped to climb. The appearance of the place was very uninviting, suggesting a long-continued grind of a most excruciating character, and the possibility of finding the snow in the couloirs either too thin over the rocks, or else soft and avalanchy. Neither Walker nor myself, therefore, was at all sorry to find that Almer and Croz objected to such a course, and preferred climbing the buttress on our right, and following it or its continuations to the main ridge, against which it finally abutted. Steering accordingly to the right, we got off the snow, and commenced climbing diagonally along the side of this buttress. I have rarely done a more laborious, not to say

difficult, piece of walking. The soil was hard black grit, very steeply inclined, and without the faintest vestige of path. The footing was, consequently, so bad that it was no very easy matter to get on at all without slipping into the ravine below. The only way was to make a series of rushes, not stopping to pause before each footstep; and as, in addition to the lateral inclination being great, we mounted tolerably straight up, the constant series of efforts became most fatiguing, and finally landed me on the better ground above, more winded than I have often been. However, what we had undergone clearly showed how we should have been victimised had we adopted the course first proposed; so, duly congratulating ourselves on our superior wisdom, we went on our way rejoicing.

We were now above the cliffs which I had looked at last night from the grassy knoll near the chalets, of which from our present position we had a good view. It was a considerable relief to find ourselves again on grass, poor though it was, and a still greater one to discover a faint track, which led us over comparatively level ground to the crest of the buttress, from which we looked down into a long valley, with a ridge at its head, over which lay the Col de Martignare.[2] The track led down into this valley, and we followed it for some way, but, as we did so, the idea of making so considerable a descent in order to traverse a long dreary valley, and finally mount again to the Col, became more and more distasteful to us, and at length we determined to climb again to the top of the buttress, and follow it as long as possible towards the main ridge. We came to this decision against the opinion of the guides, who, preferring present ease, wished to descend and make for the Col. The event, however, proved that we were undoubtedly right, and later on our friends candidly admitted it. A steep and toilsome scramble brought us at 5.50 once more on to our buttress,[3] here narrowed to an arête, overlooking on the right the valley we had left behind, and on our left the Combe de la Saussaz, while in front it stretched away towards a rocky point on the main ridge, which we should have to get over or circumvent in order to reach our wished-for summit. This arête is very well marked on the Sardinian map, where it bears the singular name of the

THE AIGUILLES D'ARVES AND DE LA SAUSSAZ.

'Arête Letolé' (sic). It is not the least narrow; that is to say, there is ample room for one person to pass along at a time in comfort, nor is it for the most part at all steep, and is composed of fine shale, along which the walking is most agreeable. Altogether I never traversed a more pleasant pathway, and as we looked down into the valley on our right and the ravine on our left, we felt that on each occasion when we had had to choose a way we had chosen well. As we advanced, the view in front, of course, remained unchanged, but behind we gradually opened out that superb view of the chain of Mont Blanc which we had yesterday enjoyed, and which is one of the greatest attractions of all the expeditions in this part of the Alps. From no other direction does Mont Blanc show to such advantage, or display so fully his supremacy over all the other neighbouring peaks. But this was not all, for in advance of Mont Blanc was the extensive group of the Graians, presenting a crowd of fine summits, to us unknown, with the exception of the Paradis, which was unmistakable. After three quarters of an hour of the most luxurious walking, with only an occasional bit of stiff ascent, our way became less easy, the slope increased formidably in steepness, the shale gave place again to hard grit, and, to make matters worse, water trickling over this from the snow higher up had frozen, forming in many places a thin coating of ice, where great care was necessary in passing. We were now approaching the rocky point on the main ridge against which the arête finally abuts, and began to doubt the propriety of pushing straight up to it, as it appeared uncertain whether we should be able to work round either side of it, and so get on to the ridge. After some discussion, we abandoned the arête at 6.50, and commenced crossing the side of the buttress diagonally towards a point on what appeared to be the main ridge, rather to the right of the rocky point. The piece of work that ensued was far from easy, for the slope of the ground was so steep, and there was so much ice, that we found it difficult to keep our footing, and avoid an ugly slip. Walker and Croz followed a slightly different route to that pursued by Whymper, myself, and Almer, whose axe was brought vigorously into play. There was not much to choose between them in point

of difficulty, but ours had the trifling advantage that it brought us to one spot, where the snow trickled over the rocks in sufficient quantity to enable us to get a good draught and refresh ourselves a little. At length, after considerable trouble, we got on to the ridge at 7.20, and found that it was only a shoulder of the peak above, and that the main ridge was a little further on, but accessible with ease over steep slopes of snow, filling the angle between the two. As, however, it was not certain that, even when on the ridge, we should be able to get along it, the guides went on to reconnoitre, while we sat contemplating the great glacier of Mont du Lans, of which we now for the first time got a view. It is certainly a fine object, a vast billowy field of névé, occupying the summit of a great rocky plateau, and pouring down steep and narrow glaciers through the numerous gorges which run down towards the Combe de Malaval, and the road of the Lautaret; but on the whole we were disappointed, I scarcely know why, but there was a something wanting to produce an entirely satisfactory effect. The men soon returned, reporting that in front all was well, so at 7.35 we resumed our way, carefully traversed the slope of steep snow, and were very shortly on the main ridge, where we were at once met by the anxiously looked-for chain of the Meije; but, as the same was seen to much greater perfection higher up, I will reserve description. Turning to the left, we now passed under the southern face of the point we had been so long approaching from the opposite side, and in due course found ourselves standing at the edge of a series of long snow-slopes, stretching up to the base of a fine rock-peak, for which we determined to make, concluding it to be one of those which we had inspected from the Combe de la Saussaz. The slopes were very steep, and the snow in the worst possible condition, hard on the surface, but soft and powdery below, so that the footing gave at every step, and the work was very fatiguing. Nevertheless, with occasional short halts to take breath, we mounted until we reached the rocks forming the final peak. Skirting the snow at the base of these, we at last took to them, and commenced climbing straight up towards the summit. The rocks were steep, but much shattered, presenting no difficulty, and

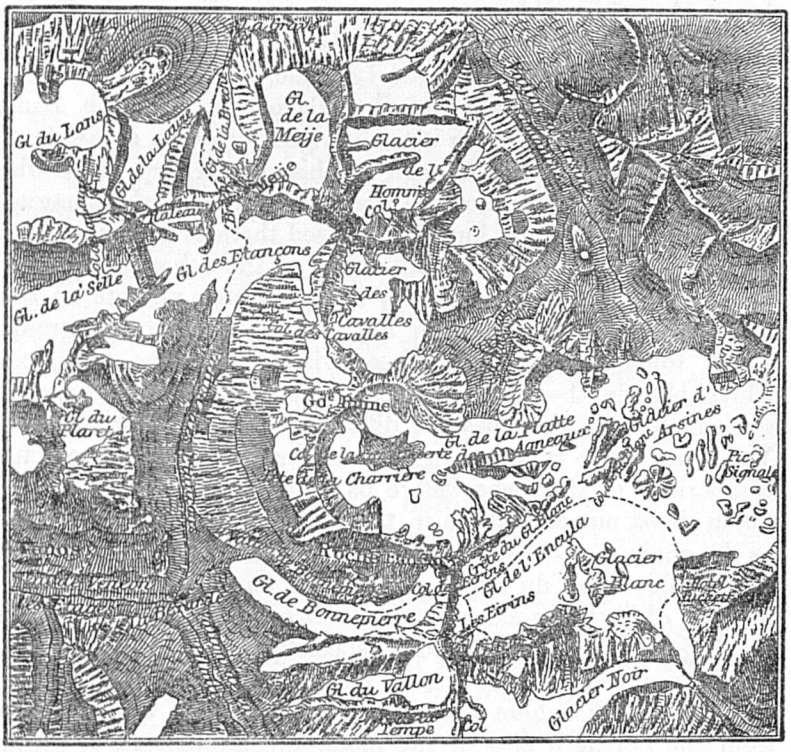
merely calling for the exercise of ordinary care; nor were they particularly long, and, after a pleasant scramble, the last one was surmounted, and a few steps of very gentle ascent over snow brought us, at 9.15, to the summit of our peak, a sharp snow-point, cut away in formidable precipices on the side of La Saussaz.

As we had expected, we were not on the highest point in the neighbourhood, but exactly where we were it was impossible from the map to make out, as the lay of the land by no means corresponded with the features laid down by either the French or Italian authorities. In a south-easterly direction from us, and separated by a considerable glacier, which also clothed it to the very summit, was a fine conical snow-peak, apparently about 200 feet higher than our position, *certainly* on the watershed, but otherwise corresponding tolerably to the position assigned on the Sardinian map to the Aiguille du Goléon. On the summit there appeared to be a 'signal,' and I have very little doubt that it really is the Aiguille du Goléon, 11,251 feet in height, and that we were on the Bec du Grenier, the height of which, by comparison with the neighbouring peaks and ridges, we estimated at about 11,000 feet. We might have reached the higher point without any difficulty in, I suppose, about two hours, but we already commanded so admirable a view that we did not consider that the extra height to be gained would repay us for the labour to be undergone. The view was one of the most gorgeous I ever saw, and we could not possibly have had more favourable weather for enjoying it, the sky being absolutely cloudless, and the temperature agreeably warm. It was most extensive towards the north, where Mont Blanc towered above all his rivals in unparalleled magnificence, with, in front, the countless peaks of the Graian and Tarantaise Alps, amongst which latter Croz now picked out his old conquest, the Mont Pourri, while, in close proximity to us, the rival and parallel groups of the Grandes Rousses and Aiguilles d'Arves formed a foreground of no ordinary interest. The latter especially are extraordinary objects; in fact, small Matterhorns, quite as steep and rugged, and more symmetrical than the genuine Matterhorn, while they, the two highest peaks at least,

are quite as inaccessible.* But, however attractive this portion of the panorama, it could not long detain us from the prospect south, where the whole chain of the Meije, seen from a height and distance sufficiently great to allow us to form some idea of its real elevation, lay extended in perfect beauty before us. Having established ourselves on the highest rocks in comfortable attitudes, my glass was got out, and we prepared for a thorough study of the range. Straight in front[4] of us was the great mass of the Meije itself, the second mountain in Dauphiné, rising to a height of 13,081 feet, or only 201 feet lower than Les Ecrins, one of the finest walls of mingled crag and glacier in the Alps. There is no one distinct summit, but many pinnacles crown the ridge, three of which appeared to be so equal in height, that without the map we should probably have been unable to decide upon their relative claims to supremacy. There, however, the palm is given to the western peak—we thought on the whole correctly—though whether it exceeds the eastern point by so much as 249 feet, as stated, may be doubted. Between the eastern and western peaks, which are of bare rock, rises the third summit, on which is much more snow. It appeared to us little, if at all, lower than either of its neighbours, and might, *perhaps*, be scaled from La Grave with great difficulty. From the very top of the western peak, the ridge falls in a tremendous precipice to a remarkable narrow gap, beyond which it rises less steeply to the long, shattered crest of the Rateau. To this gap the name of Brèche de la Meije, and the height of 11,054 feet are given on the French map, and through it we hoped to make a direct pass from La Grave to La Bérarde, descending on the other side by the Glacier des Etançons. Photographs, and the description of travellers who had preceded us, had led us to expect considerable difficulties in the undertaking, but I think that none of us were quite prepared for a place so utterly impracticable-looking as that we now saw. From the Brèche, a steep ice-wall, with a large bergschrund at its base, fell to the glacier below. The upper slopes of this were gentle, but did not long remain so, for they gradually merged into an ice-fall of the steepest and most

* This observation is, of course, no longer applicable.

shattered character, which continued without the slightest intermission to the foot of the glacier. To gain the Brèche by ascending straight up this was obviously impossible, but at first sight there appeared to be no alternative route. The great field of ice, enclosed between the Meije, the Rateau, and the



THE RANGE OF THE MEIJE AND ECRINS.

spur from the latter supporting the Glacier du Mont du Lans, is divided into three distinct branches by an enormous biforked buttress running up into it from the direction of La Grave. The western prong stretches in the direction of the Rateau, and the eastern one towards the Brèche, while in the actual fork hangs the central and least extensive branch of the

glacier, steeper but less crevassed than the branch falling from the Brèche itself, with which it is connected by slopes of névé. The result of our examination was that, first by the rocks between these two branches, and then by the central branch, our goal must be reached, if at all. The rocks, it is true, looked bad, and were reported by previous travellers to be '*moutonnés*,' but there did not appear to be any other route offering the slightest chance of success. To the west of the Rateau was the Col de la Lauze, or de La Selle, leading to St. Christophe, over the extremity of the Glacier du Mont du Lans, which stretched away from it to the right for miles, a vast level field of névé. At the far end of this glacier, but some distance beyond it, a crowd of fine peaks were seen, of whose names, even, we were ignorant, but we supposed them to be somewhere near the head of the Combe des Arias, on the other side of the valley of the Venéon. Curiously enough I have no note on the subject of either the Ecrins or any peak of the Pelvoux group, which must, however, have been visible; but the precipices which hem in the short but very broad Glacier d'Arsines, over some point on which goes the difficult Col du Glacier Blanc to Val Louise, were very striking. I am sorry to say that a careful comparison of the scene before us with the French map very much shook our confidence in the accuracy of the latter, so far as the chain of the Meije is concerned. The eastern end of the Glacier du Mont du Lans appeared to be laid down very inexactly, while the glacier that falls direct from the Brèche de la Meije is terribly cramped, especially in its lower portion. But far more serious errors have been made about the mass of the Meije itself, where the Glacier de la Meije, which hangs from the northern face of the mountain, is depicted as about twice its true size, and as running at its south-eastern angle into a gap behind the second or eastern peak, communicating with the Glacier des Etançons on the south side. Now, in point of fact, on the north side there is absolutely no such recess as that depicted on the map, but the space devoted to it is really occupied by a confused mass of precipitous pinnacles, couloirs, and hanging glaciers, which completely cut off the Glacier de la Meije from the Glacier des Etançons.[5] We

had thought of making a return pass from La Bérarde to La Grave by these two glaciers, but the idea was, of course, very summarily knocked on the head. On the accompanying map I have corrected to the best of my ability the most glaring errors on the French map, but have no confidence that my map represents the real state of things, which can only be made out with proper instruments.

After an hour and three quarters spent in most perfect enjoyment, we turned to descend at 11.5 a.m., but, wishing to avoid the rocks by which we had mounted, bore to the left, and got down to the glacier-clad ridge connecting our peak with the supposed Aiguille du Goléon. From this a formidably steep slope of snow fell towards the valley, and in its upper part required the greatest care in traversing, in order to avoid causing an avalanche, the sun having acted upon the snow with such effect, that at every step we went in up to our waists. However, the steepest part was soon over, and we were at length able to indulge in a long glissade, which carried us rapidly down to the level snow-plain below, where at 11.35 we halted, taking up our position on some loose masses of rock lying about. During a quarter of an hour's halt, Walker and I amused ourselves by shying stones at a large stone set up a certain distance off as a mark, but I am bound, as an impartial historian, to confess that, as in glissading, so in stone-throwing, his skill was far greater than mine. At 11.50 we were again on the move, and, always bearing to the left, descended rapidly, until after another glissade, and traversing a most unpleasant track of mingled stones and snow, we finally quitted the snow and took off our gaiters. We were now at the head of a long straight lateral valley, which opens out into the valley of the Romanche, rather below La Grave. Tracks were visible on both sides of the torrent, but we selected that on the left bank, intending eventually to pass through one of several gaps in the ridge, which we supposed would bring us straight down upon La Grave. The valley was intersected by numerous small ravines which were troublesome, as the path, not a very good one, had to dip into every one of them, adding materially to the labour. The distance, too, was great, and the view of the Meije in front

scarcely redeemed the walk from dulness. At any rate no one was sorry when, at 1.25, the gap in the ridge was reached, and we found ourselves looking down upon the Lautaret road, and in a position almost more favourable for surveying the Brèche than higher up. We had another good look at it, and were confirmed in our opinion that the rocks, bad as they appeared to be, offered the only chance of success. A very long steep slope of avalanche snow on the right bank of the glacier under the Meije attracted our attention, but a glance at the enormous mass of débris at its base, and the séracs above showed that it was too dangerous to be seriously thought of as a road. Notwithstanding the apparent difficulties, Almer appeared tolerably sanguine that we should find some sort of way over, and we were willing enough to be persuaded of the correctness of his opinion, so, at 1.50, went on our way. The faintly-marked track led over rough and barren ground, keeping to the right until the foot of the descent was nearly reached, when we had to make a long zig-zag to the left, which finally brought us into the track from the Col du Goléon (?), close to a considerable village which we had supposed to be La Grave. That place, however, was some way further down, and we had a hot, tiresome, stony, and very steep descent, before we at last dropped into the Lautaret road, close to the village, and walked into the little inn '*chez Juge*' at 2.40 p.m.

We were agreeably surprised at the appearance of the inn, which we had been prepared to find so poor that we had intended passing the night at some chalets on the other side of the Romanche, where we should be nearer our morning's work. We were shown into a very tidy *salon* beyond the common room, and three clean-looking bedrooms, the sight of which quite determined us to remain where we were, especially as going on to the chalets, which were not yet inhabited, would not shorten the next day's journey materially. Accordingly dinner was ordered, and during its preparation we killed the time in consuming lemonade largely, admiring the grand view of the Meije and its glaciers, which is to be had from the very door of the inn, and lastly in discoursing with the natives. We informed them of our designs upon the Brèche, but found

an apathy on the subject which astonished us amongst a population numbering in its ranks several of (in their own opinion) *les plus grands chasseurs du monde.* One and all united in declaring the project utterly impracticable. Some chaffed us mildly as amiable lunatics, while the officials of the *Gendarmerie Impériale* condescended to be particularly jocose on the subject. While sitting in the common *salle,* Walker and I were accosted by a stout, not to say podgy, individual, who, in ignorance of our names, informed us that he and others had been invited by a Monsieur Renaud of La Bessée, to meet Messrs. Walker, Whymper, and Moore at Ville Vallouise on the 26th June, for the purpose of ascending the Pic des Ecrins, and that he was now on his way there, adding that he was an experienced mountaineer, having ascended the Rigi, and walked a good deal in the country about Zürich! Our alarm at this piece of news was considerable, nor was it diminished on our friend further observing that Monsieur Renaud had engaged *four-and-twenty of the most renowned* guides of the country to accompany us. We were at a loss to understand how anything could have transpired regarding our movements, until Whymper explained that before leaving England he had written to Monsieur Renaud, inviting *him* to join us on a *pass* we proposed to make from Val Louise to La Bérarde, and casually mentioning that we also intended to have a look at the Ecrins; but, of course, he never meant M. Renaud to extend the invitation to strangers. However, we managed to shake off our stout friend, and carefully abstained from revealing ourselves, or mentioning that we hoped, all going well, to have the top of the Ecrins in our pockets by the evening of Saturday the 25th, so that he, Renaud, and the four-and-twenty renowned guides would find themselves left 'out in the cold.' After dinner, which was very fair indeed, we had an interview with 'the most unblushing liar in Dauphiné,' Alexander Pic by name, a sturdy, good-looking fellow, who immediately began giving us specimens of his peculiar qualifications by stating various topographical facts in connection with the neighbouring glaciers, five out of six of which, we, of our own knowledge, knew to be grossly incorrect. Notwithstanding his want of

veracity, he appeared a good stout walker, so we engaged him to carry all our traps round to Rodier's house at La Bérarde, where he undertook to deposit them by an early hour the next afternoon. All other arrangements having been made, we went to bed, not altogether happy about the weather, which looked unsettled, but general opinion was in favour of a fine day for the morrow, so I got between the sheets for the first time since the previous Friday night, hoping for the best.

NOTES TO CHAPTER II

[1] The point actually ascended by the party is now known as the South Summit (about 10,880 feet) of the Aiguilles de la Saussaz. I have not thought it worth while, however, to alter the wording of the text in any way. The name 'Bec du Grenier' does not occur on the *Carte Vicinale*, except in connection with a little lake, nor does any 'Aiguille du Goléon' appear. The true Bec du Grenier is probably a point on the ridge seen extending to the right from the Aiguille de la Saussaz in Plate II. The Aiguille du Goléon lies further east in the same direction, and was probably correctly identified by Moore. It is 11,251 feet high, and easily accessible from the Col Lombard or Col du Goléon routes. The correct positions and names of their points are all given in Whymper's *Scrambles*, and made clear by his sketch map on page 183 of that work.

[2] See description of the view which heads this chapter, and which was taken from the summit of this Col.

[3] See description of Plate II., which shows this part of the route very fully.

[4] See description of the view which heads this chapter.

[5] See plates in chapter iii.

CHAPTER III

THE BRÈCHE DE LA MEIJE

Thursday, 23rd June.—I had apparently only just closed my eyes, when I opened them again, and sounding my watch, found that it was 1.0 a.m., and that, consequently, our short night had already come to an end. It was an unpleasant fact, and, as I sat up in my bed, hugging my knees, a hard inward struggle went on before I could resolve not to lie down for another half-hour. However, virtue triumphed, and I crawled out of bed and went to the window, when a state of things not very satisfactory was disclosed. Rain was not falling, but the sky was obscured with heavy clouds, while those objectionable little white mists which are so ominous to mountaineers, were creeping slowly down the valley along the flanks of the mountains. Whymper had particularly requested that, in the event of its being uncertain whether or not we should start, he might not be disturbed, so I went into Walker's room, woke him up, and putting our heads together out of window, we meditated on what it was best to do. We should have found some difficulty

in making up our minds, but, while anxiously scanning the heavens, there was a sudden break in the clouds, which revealed the moon shining up above in a clear sky, and summarily settled the question. Whymper was roused, and, as there was no sign of movement in the house, I took a candle and went off to perform a similar pleasant operation on the guides. I made my way into the kitchen, where a fire was still smouldering, and was saluted by the combined buzzing of some thousands of blue-bottle flies whom my light had roused from their slumbers on the white-washed walls. These vermin, I at first thought, were the sole occupants of the apartment; but as my eyes by degrees penetrated the gloom, they rested upon an old woman sitting in a chair, who, with mouth wide open, and eyes almost projecting from their sockets, was fixedly staring at me, with terror depicted on her venerable visage. What she took me for, unless a midnight murderer, I cannot tell, for she appeared unable to speak. However, the sound of my mellifluous voice broke the spell, and I at last succeeded in making her comprehend that she was to wake up Almer and Croz, and prepare breakfast while we were dressing. I am afraid that poor Whymper's breakfast must have been considerably spoiled by the behaviour of his boots, which obstinately declined to allow his feet to get into them. The more he worked and pulled, the more they would *not* go on, until we at last were becoming seriously alarmed lest he might have to attack the Brèche with one boot half on and the other in an even less advanced position. However, perseverance and unparliamentary language finally prevailed, the obnoxious articles were in their proper places, breakfast was finished, the provisions were packed and arranged, and at 2.40 a.m. we left La Grave in high spirits, the weather having almost entirely cleared.

A slight descent brought us down to the Romanche, which was crossed by a wooden bridge, and a good path led rapidly up the steep grass slopes on the opposite side, bearing rather to the right towards the entrance of the gorge, through which the drainage from the glaciers of the Brèche and Rateau flows to join the main stream. Before reaching the chalets at which we had intended to sleep, we struck down to the bank of the

THE MEIJE FROM ABOVE LA GRAVE.

torrent, and, crossing to the left side of the gorge, followed a rough track over stones and through scattered pinewoods, towards the great glaciers in front. We were surprised to see how very much further back these lay than we had supposed when looking up from La Grave, and also at how great an elevation the ice terminated. Whilst steadily advancing we had an exceedingly fine view on the other side of the gorge of the Glacier de la Meije, and of the side of the Meije itself. The glacier, though extensive, is quite one of the secondary order, and ends at a far higher level than that which comes down from the Brèche. It is a continuous ice-fall from top to bottom, but its ascent would be quite practicable, and by it we thought that it might be possible to get very high up, if not to the summit of the central peak of the Meije. On to the highest point of that superb mountain-mass there did not appear to us any possibility of arriving from this side.[1] In fact, I have rarely seen such hopelessly impracticable precipices. Leaving the route to the Col de la Lauze on our right, and passing the foot of the Glacier de la Brèche,[2] which was so covered with moraine and débris that it was difficult to say where terra firma ended and the glacier began, our path became more and more vague, difficult, and laborious, until, after picking our way through and over a wilderness of stones, we got fairly on to the moraine of the glacier at 4.0 a.m., stumbled along it for ten minutes, and then stopped to look about us. I have rarely seen a more glorious spectacle than that presented by the great ice-fall of the eastern arm of the Glacier de la Brèche, at the foot of which we were now standing. Of less breadth than the celebrated ice-fall of the Col du Géant, it is far steeper and longer, and, hard as it may be to believe, infinitely more shattered. It receives at about half its height a considerable tributary from the side of the Meije, quite as dislocated, and even steeper, so that huge towers and pinnacles of ice are perpetually pushed over and dashed down to the lower level. The result is, that in one place a very long steep slope of avalanche débris has been formed stretching far up into the confused sea of séracs; and we had at one time thought that this might offer a practicable route to the upper and comparatively level plateau above the ice-fall.

The sight of the huge cliffs of ice that impended over this slope, ready to rake at it at any moment, now finally put an end to any such idea, especially as we for the first time realised the length and steepness of this apparent high road, which would have required many hours of step-cutting to surmount, and, after all, would not have brought us to the very top of the fall. A near view, therefore, only confirmed us in the opinion we had formed yesterday on the Bec du Grenier that the ascent must be made by the western arm of the glacier, which is enclosed in the fork of the buttress before mentioned. This arm of the glacier, originating under the eastern end of the long crest of the Rateau, communicates in its upper portion with the Glacier de la Brèche on the east, but on the west is cut off by a spur of the Rateau from the third great arm of glacier, which for present purposes I shall call Glacier de la Lauze. From its source it falls very steeply in somewhat crevassed slopes of névé and ice, until it ends abruptly in a precipitous and very narrow tongue of ice. Over the rocky wall supporting this curious finale huge blocks of ice are hurled periodically, and the result here also is a long steep slope of débris, stretching far over the level tract below. It was clearly impossible to approach this glacier at its very end, much less get on to it, nor, had it been possible, would there have been any advantage in doing so, for the ice immediately above was so steep and broken that no passage up it could have been forced. But above a certain height the glacier, though steep, was evidently practicable, and we saw to our no small satisfaction that, if we could only manage to get on to the ice above that point, there would be no further serious difficulty to encounter, until we reached the ice-wall leading to the Col. But how to get on to it? There in truth was the rub! The rocks looked more and more detestable as we came near them, yet up those on the right bank of the glacier, that is to say, up the most eastern of the two spurs, must we find a way, if the goal was ever to be attained.

It did not take long to realise all this, and at 4.20 we resumed our way over the moraine, which, for moraine, was by no means bad. Nevertheless, at 4.40 we quitted it without regret, and commenced a series of short zig-zags up a slope of avalanche-

snow which stretched up to the very edge of the rocks on which our fate was to be decided. The slope was steep and the snow hard, but a kick from Croz, who was leading, was sufficient to give good footing, and we mounted rapidly, so that, when at 4.55 we stood at the edge of the rocks, I was quite surprised to see how much we had risen above the glacier in the last quarter of an hour. The first few steps, after quitting the snow, required care, but, after scrambling up for five minutes, we once more halted in an eligible position to take breath, and prepare for the tug of war. Our spirits, like our bodies, had risen considerably, for we had already discovered that these dreaded rocks, which were supposed to be *moutonnés*, and ground quite smooth in consequence of having once been covered by the now shrunken glaciers, were composed of rough granite, which, though steep, gave particularly good foothold. At 5.10 we were ready for the fray, and started off to try conclusions with our enemy. We were soon busily engaged in a most agreeable climb, winding about wherever the passage seemed easiest; encountering no serious difficulty, but at the same time keeping hands as well as feet hard at work, we steadily advanced. Some places from below had seemed almost impassable, and had troubled severely the minds of both Almer and Croz, but now, when it came to the point, some of these ugly bits were altogether avoided, while others were circumvented by help of opportune gullies and patches of snow, which from the lower level had been invisible. It was really quite a pleasure to scale such delightful rocks; the stone held the boot so well that, even in the steepest places, I, who am by no means a first-rate performer, felt that, without making a positive effort to do so, it would be almost impossible to slip. So things went on flourishingly until 6.5, when we found ourselves at the foot of a slope of hard snow, covering the rocks, which would evidently lead us right on to the glacier, at the very point we had below settled to be the most eligible. Before attacking this, it was thought prudent to put on the rope, and, although the precaution was not strictly necessary, it was undoubtedly wise, as the slope was very steep, and the consequences of a bad slip to an untied individual would have

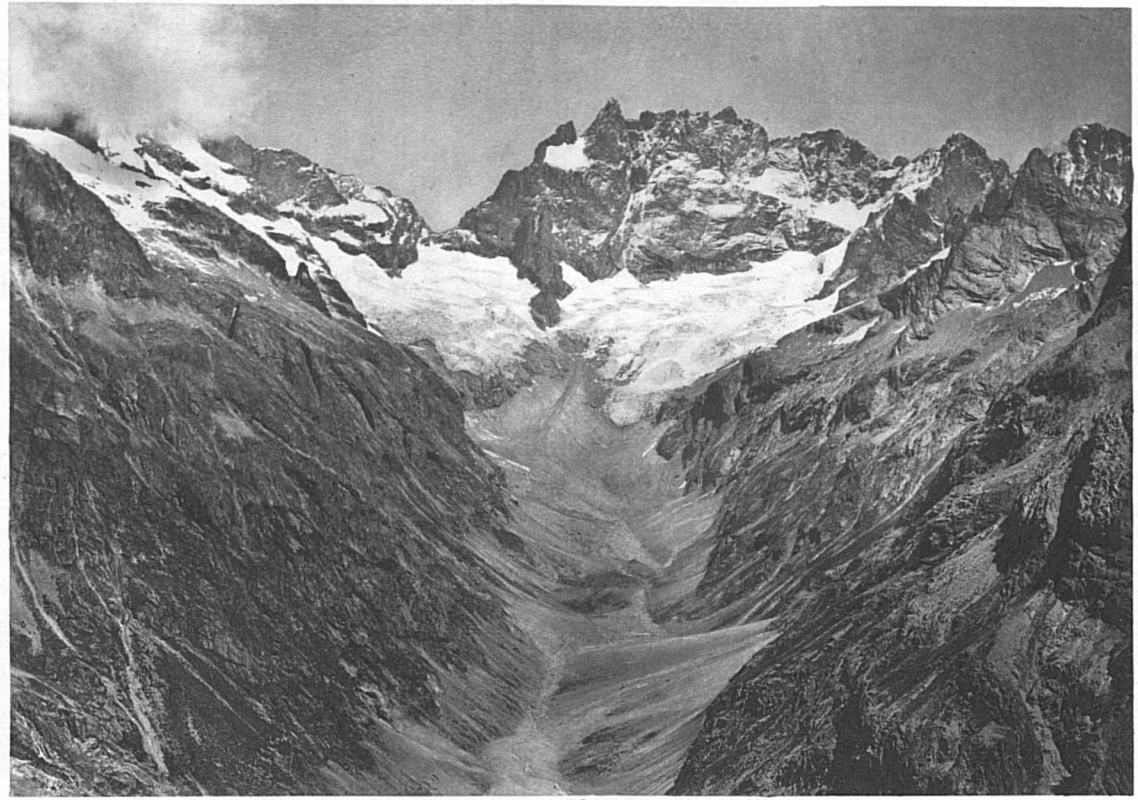
been unpleasant. Cutting diagonally up and across the slope, we passed under a great overhanging pinnacle of ice, and at 6.20 stepped on to the glacier, which from La Grave had looked so hopelessly inaccessible, without having encountered any serious difficulty at all. There was some talk about breakfasting here, but, at the urgent request of the guides, we determined to postpone that tempting operation as long as possible, as they were anxious to get on to the upper plateau of the glacier before the sun should have softened the snow. We were all in high spirits at the unlooked-for facility with which our present position had been attained, and Whymper who, in a desponding moment at La Grave, had bet Walker and myself each two francs that the time occupied in reaching the Col would be nearer thirteen hours than eight hours, was anxious to know for how much, down on the nail, we would let him off, but we held him to his bargain, and chuckled. The slopes, which now stretched upwards in front of us, were steep, but the snow was in admirable order, and we went straight up without zig-zags in a more direct line than I ever remember to have followed on any former occasion. A few crevasses had to be crossed or circumvented; but, although later in the season the state of things might be vastly different, there was no difficulty worth mentioning, and the labour inevitably attending the ascent of so steep a slope was the sole obstacle to still more rapid progress. The guides took it in turn to lead, and by 7.15 had brought us to a point where they at last allowed us to stop for breakfast; not a bit too soon, as the interiors of all were beginning to wax rebellious, so much so, that Walker, probably from having waited too long, so soon as he *had* eaten something, was violently sick, to our no small alarm. He, however, very soon revived, and felt all the better for the operation.

It was a glorious morning, and Mont Blanc in the distance looked more superb than ever, while the three peaks of Les Aiguilles d'Arves appeared as inaccessible as from most other points of view. At 7.45 we resumed our march, and now, for the first time, struck off to the left, in order to get on to the head of the eastern arm of the Glacier de la Brèche, which

was connected with our arm by steep slopes of névé, intersected by some very considerable crevasses. Our route led just above one of these chasms, a monster, with gaping jaws fringed with icicles, quite ready to receive the whole party, in the event of any one slipping from the insecure and slippery staircase that was cut along and above the upper edge. On rounding the last of these slopes, we obtained, for the first time since getting on to the rocks, a view of the Col, which was now not far above us, but separated by a considerable expanse of almost level snow-fields, extending to the foot of the final wall. We took our turn at guessing the amount of time likely to be expended in gaining the ridge. Walker estimated one hour and a half, while I, resolving not to be under the mark, allowed three hours. For a considerable time we had been exposed to the full power of a rather scorching sun, but, traversing the snow-fields towards the Col, we soon fell under the shadow cast by the great wall of the Meije, so took the opportunity to halt for a few seconds, while the guides hastily made up their minds as to the exact point at which it would be best to attack the bergschrund, which, as usual, ran like a moat along the base of the ice-wall. The ground steepened as we advanced, and a few large crevasses had to be avoided, but at 8.30 the lower edge of the bergschrund was reached, and we stood at the base of the last obstacle between us and the wished-for goal, a wall of ice, covered with snow, rising to a height of perhaps 150 feet above the glacier. Our course had been well chosen, as we hit the chasm at a point where it was almost choked with snow, so that there was no actual difficulty in crossing; but right and left the gulf yawned with open mouth, and rather later on in the season would be a most formidable, if not impassable, obstacle. As it was, we found far less difficulty in getting over than in hanging on when the other side was reached. I have not often been on a slope of snow steeper than this was immediately above the bergschrund. The angle there must have been at least 55°, and higher up, where the inclination was not so great, I tried it with my clinometer and found 48°, steeper than any part of the celebrated wall of the Strahleck. For-

tunately the snow was in excellent condition, and, exercising every caution, we worked gradually straight up, and, at 8.50 a.m., stepped with a yell of triumph into the narrow gap not many yards wide. The Brèche de la Meije was won.

We had been only six hours and a quarter from La Grave, including halts amounting in the whole to about one hour, so that Whymper had to shell out his money to Walker and myself; but I doubt whether he ever paid anything in his life with such satisfaction and good will. The height of the pass, according to the French map, is 3369 mètres, or 11,054 English feet,[3] probably not far from the truth; and, assuming it to be so, we were able to fix the height of the Bec du Grenier with tolerable accuracy at 11,000 feet. Yesterday, looking across *from* it to the Brèche, we had been unable to determine which was the higher point of the two, and now, looking *at it* from the Brèche, we were in an equal state of uncertainty, a tolerable proof that there is not very much difference between the two. The Col is, or rather was at this time, a very narrow snow-ridge, with a few patches of rock cropping out, and on one of these we took up our position, so soon as we had relieved our excited feelings by yelling till we were almost black in the face. The view, looking north, was pretty much what we had seen coming up, and was slightly obscured by clouds, the Grandes Rousses alone being quite clear; but to the south it was far more interesting. The Glacier des Etançons fell away from our feet, and a very cursory inspection showed that no very great difficulty would be encountered in descending by it to the Vallon des Etançons and La Bérarde. Two spurs, running down from the Rateau and Meije respectively, divide the upper portion of the glacier into three bays, of which the eastern one is much the most extensive. The Col is at the head of the central one. The Pic des Ecrins was very well seen, towering over the ridge to the north of what we supposed to be the Grande Ruine, one of several wonderful pinnacles of rock which rise out of the lofty ridge on the left side of the Vallon des Etançons. The Pelvoux was quite invisible, but to the right of the Ecrins was the huge mass of the Ailefroide, certainly the finest feature of the view. This glorious mountain bears a



THE MEIJE FROM THE SOUTH.

strong resemblance to the Meije, inasmuch as, like its loftier neighbour, it is a conglomeration of peaks, so nearly equal in height that it is hard to say which is the true summit, and is, moreover, equally precipitous and inaccessible in appearance. To the right of the Ailefroide, the great Glacier de la Pilatte lay extended in all its length and breadth, closed at its head by a lofty ice-covered ridge, considerably higher than that on which we were sitting, and crowned by several fine peaks. The ridge bears on the French map the singular title of 'Crête des Bœufs Rouges,' and over some portion of it we hoped to make a new pass from Ville Val Louise to La Bérarde. There were several well-marked gaps in the ridge, but none very promising in appearance, so far as regarded the descent on to the Glacier de la Pilatte. To the right of that glacier was a very fine group of peaks, standing at the head of the Glaciers du Chardon and du Vallon, over each of which it seemed that passes might be made to the Val Godemar with no very great difficulty. In our immediate vicinity the most striking object was the long ridge which runs up from the Col to one of the lower peaks of the Rateau. I have never seen so shattered and serrated a ridge; in places it was a mere knife-edge of rock, and all along so rotten that it seemed as if a puff of wind or a clap of thunder must dash the whole fabric to pieces. The pinnacle, too, to which it led, was worthy of it, a marvellously sharp spike of rock, on which a man might comfortably impale himself. The corresponding ridge from the Meije on the east side of the Col was far more solid, and at the same time much more precipitous, falling abruptly from the western peak of the mountain, whose height from a point so immediately below we were of course unable fairly to realise.

A cool breeze was blowing over the Col, and, although our position was tolerably sheltered, we found ourselves getting chilly, so, at 9.50 a.m., took a final look at La Grave, and commenced the descent towards La Bérarde. A short but steep snow-slope * fell from our feet to the Glacier des Etançons below, and we commenced the descent close under the rocks of the

* Later in the year this would probably be found a wall of bare rock, and its descent might be troublesome.[4]

Rateau; in fact, when about half-way down, we took to the rocks for a few steps. The snow was very soft, but there was no other difficulty, and we soon found ourselves safe over the small bergschrund that intervened between us and the comparatively level fields of névé. We now struck straight across the glacier towards the long southern spur of the Meije, but to reach it had almost to wade through the soft snow, which was considerably crevassed. Once under the rocks we descended rapidly, pursued by a shower of stones from the Meije, which had to be dodged, and made us by no means sorry when the long spur was turned, and we were fairly on the eastern arm of the glacier, out of harm's way. The great southern face of the Meije, overhanging this arm of the glacier, is a wonderful object; a long line of cliff, totally unlike anything I have seen in any other part of the Alps. The range of crags, forming the left bank of the glacier, is seamed by several snow couloirs, leading up to gaps in the ridge. The most northerly of these was especially tempting, and, according to the map, ought to have communicated with the Glacier de la Meije at its south-eastern angle.[5] This, however, we had seen from the Bec du Grenier, could not possibly be the case, and we were quite unable to guess where any one, reaching the gap from the south, would really find himself in relation to the glaciers on the north side of the chain. The range on the right bank of the glacier is as lofty and even more precipitous than the other. It is a long spur, running south from the Rateau, and completely cuts off the Glacier de la Selle, which drains towards St. Christophe, from the Glacier des Etançons. This ridge is not laid down on the French map, where its place is assigned to a glacier, bearing the curious name of 'Glacier du Col,' which, in reality, does not exist. It is very doubtful whether any passage can be forced in this direction from the Vallon des Etançons to the Vallon de la Selle, as the intervening barrier is of a most impracticable character, with short and steep hanging glaciers clinging to the cliffs.[6] Nothing could well be easier than the central portion of the Glacier des Etançons, down which we went at a great pace, avoiding without difficulty the few crevasses that were not entirely snowed over, until, steering towards the right bank, we got clear of the snow-

covered ice at 10.55, and, as nothing but open and easy glacier lay before us, halted for ten minutes to take off the rope, invariably a welcome operation. The glacier was in a horribly wet condition, and at every step we went above our ankles into slush, which was equally trying to our tempers and our boots. Towards the end crevasses became more numerous, and we at last took to the central moraine, the walking along which was simply loathsome. The moraine gradually spread over the whole end of the glacier, and then both moraine and glacier gradually came to an end, or rather died out on a level stone-covered plain. We had landed on the left bank of the torrent or torrents, which were of no great breadth, and selected the first eligible spot for getting across to the right bank. This accomplished, we soon had the felicity of crossing back again, and then pushed steadily down the valley, till we reached, at 11.40, a perfect oasis in the desert, a small plot of scanty grass with loose rocks lying about, just at the foot of the steep descent from the Col des Cavalles. On seeing this haven of rest, the traps were instantaneously thrown down, and we determined to make a long halt, as there was no object in a very early arrival at La Bérarde, which was now within easy reach.

We certainly acted up to our determination, for we never budged till 3.10 p.m., and I don't think I ever spent three hours and a half more enjoyably. The view, looking up the valley, of the Glacier des Etançons, the Brèche, and the Meije, was of the most superb character, and I am happy to say that Whymper utilised the time, which Walker passed in sleeping, and I meditating, in the laudable occupation of sketching the scene, the fame of which, in any tolerably frequented part of the Alps, would draw crowds. The Meije on this side is even steeper than on the north, and falls sheer from summit to base in a long line of black precipices, on which there is scarcely a single patch of snow. The range forming the left side of the valley is scarcely less remarkable, and the huge splintered pinnacles of the Grande Ruine, Tête de la Charrière, and other less important summits, tower into the air defiantly. We were in a very good position for examining the descent from the Col des Cavalles, and agreed unanimously that, of all dreary and

detestable passes, it must be the dreariest and most detestable. The rocks and stone slopes must, whether in the ascent or descent, be most wearisome. Croz pointed out the point between the Tête de la Charrière and Grande Ruine which Mathews and Bonney reached last year from the other side and christened the Col de la Casse Déserte. They did not like to descend, but I must say that, seen from below, the descent seemed far preferable to that from the Col des Cavalles. The valley was apparently closed at its lower end by a remarkably fine group of mountains between the Glaciers du Chardon and du Vallon, the highest peak of which is called on the map Montagne du Clochatel, and is assigned a height of 11,729 feet. At 3.10, overcoming our laziness, we started off, and crossed for the last time to the right bank of the stream, expecting an easy and agreeable walk thenceforward to La Bérarde. Never were we more out of our reckoning; the whole bed of the valley is covered with stones of all sizes, from that of a cricket-ball upwards, without the faintest sign of a path. It was impossible to take our eyes off our feet, and if an unlucky individual so much as blew his nose without standing still to perform the operation, the result was either an instantaneous tumble, or a barked shin, or a half-twisted ankle. There was no end to it, and we became more savage at every step, unanimously agreeing that no power on earth would ever induce us to walk up or down this particular valley again. The scenery, nevertheless, is throughout of the highest order of rugged grandeur, and, were a tolerable path only made, as might easily be done, the tourists who, after toiling up the somewhat monotonous valley of the Venéon, arrest their steps at La Bérarde, whence there is literally nothing to be seen, would not fail to continue their route, at least as far as the little patch of grass where we halted so long. There are some very fine waterfalls from the cliffs on the right side of the valley, one like the old Cascade des Pèlerins at Chamouni, the falling water making a similar rebound; but even these picturesque objects were sources of annoyance, as they formed considerable streams, which run down to join the main torrent, and each one in succession had to be crossed as best it might. Passing the entrance of the Vallon de Bonne-

pierre, we got a good view of the glacier of the same name, and also of the Ecrins. Very shortly afterwards we really fell into what might by courtesy be called a path, which led us by a very steep and rugged descent over the shoulder of the intervening hill down to the little hamlet of La Bérarde, situated just at the point where the Vallon de la Pilatte and the Vallon des Etançons unite to form the main valley of the Venéon. It was just 4.55 p.m. when we entered the house of young Rodier, who always receives the casual visitors to this out of the way spot.

We were cordially received by him and his wife, and *affectionately* by his mother, an ancient hag in her dotage, who lavished her endearments on the party in general and poor Walker in particular rather more freely than was agreeable. Rodier, who seemed in bad health, manifested some slight interest on hearing of the route by which we had passed from La Grave, and made no difficulty in communicating all he knew about the neighbouring glaciers, which was not much. Our programme for the next day was, to cross the Col de la Temple[7] between the Ecrins and Ailefroide, and reach Tuckett's gîte on the left bank of the Glacier Blanc, with a view of attacking the Ecrins from there. Whymper, however, wished to try and make a pass nearer the Ecrins, mounting by the Glacier du Vallon, and descending on to the northern branch of the Glacier Noir. No one knew anything about the practicability of either side of the proposed pass, but it was well known that a descent on to the Glacier Noir was not practicable from all points of the long ridge which separates it from the Vallon de la Pilatte. Under these circumstances, and considering that a failure would entail the loss of three entire days, the following day being Saturday, and we not wishing to attack the Ecrins on Sunday, the voice of the majority decided against the Col du Vallon. Croz then suggested that we should bivouac on the top of the Col des Ecrins to-morrow night instead of at Tuckett's gîte, and be so much nearer the peak. This would entail the abandonment of the Col de la Tempe, which Walker and I were both anxious to pass in order to see the northern face of the Pelvoux, but, on the other hand, it would allow us to get one full night's rest at La Bérarde, and would be undeniably a far better starting-

point for the peak. An additional reason for agreeing to Croz's proposition was, that Pic had not arrived with our traps, without some of which we could not possibly start; so things were finally settled as he proposed. Our day's walk had by no means impaired our appetites, and shortly after our arrival we made Madame Rodier prepare us a large omelette; but we found that even this, with copious draughts of milk, was not sufficient to appease our hunger, so, having routed up a large ham, Walker and I proceeded to cook a dish of ham and eggs, which, in spite of our deficient culinary knowledge, turned out most excellent. Thanks to these various occupations, we found the time, till it was the hour for retiring, hang by no means heavily on our hands. We stopped up as long as possible waiting for Pic, who came not; so, invoking a blessing on the head of that mendacious one, at 9.15 we requested Rodier to show us our sleeping quarters. He led us to a capacious barn close by, where there was an abundance of clean straw, held a candle while we arranged ourselves for the night, not a very long operation, and then took his departure.

NOTES TO CHAPTER III

[1] Attempts have been made to reach the western summit of the Meije from the north side, but without success,—only a very small portion of the north-west rock face (Plate III.) having ever been traversed.

The Meije (*patois* for Midi) was the last of the great Alpine peaks to be climbed, and the story of its earlier ascents forms a most fascinating chapter in Alpine history. Details of these will be found in the *Annual of the French Alpine Club* for 1885, but they are more accessible to English readers in the *Journal* of our own Alpine Club, vols. viii, ix, and xiv. Practically the whole of the route followed is shown in Plate IV. There is now a club hut (the Châtelleret Hut), about two hours above La Bérarde in the Etançons Glen, at the little oasis on which Moore's party halted on their way down the valley. From this point the valley is ascended to the rock ridge which extends southwards from the mountain, and is seen end on, dividing the glacier into two parts, in Plate IV. This is followed to the 'Grand Couloir' (a vertical line of snow in the photograph), which, with the difficult rock wall above it, is followed to the south-west corner of the little square-looking glacier known as the Glacier Carré. This glacier is crossed, and the final peak (13,081 feet) climbed, by the extremely difficult south-west face and western arête. The first ascent was made by Monsieur E. Boileau de Castelnau, with the two Gaspards as guides, in August 1877. In July 1879 (after the mountain had been ascended three times) Mr. Charles

Pilkington (late President of the Alpine Club), with his brother Mr. Lawrence Pilkington and Mr. F. Gardiner, climbed the Meije without guides. The story is most readably told in the *Alpine Journal*, vol. ix. p. 411.

The central summit (13,026 feet) of the Meije, which appears at the left-hand end of the main ridge in Plate III. and at the right-hand end in Plate IV., was first ascended by Mr. Coolidge's party in June 1870, or seven years before the highest peak was attained.

A considerable portion of the ridge between the central and western summits had been traversed, but the great gap to the east of the final peak, now known as the Brèche Zsigmondy, baffled all climbers until 1885, when the brothers Emil and Otto Zsigmondy, with Herr Purtscheller, and without guides, succeeded in crossing it and reaching the highest summit from the east; the traverse from the central to the western summit took six hours twenty minutes. Now, when all the difficulties have been minutely examined, and when the local men know exactly how best to deal with them, without the necessity for waiting to consider at each, the Meije is 'traversed' by parties from La Bérarde to La Grave every year, the ascent being made by Castelnau's route and the descent by Zsigmondy's. The rocks are in general sound, and although the expedition is one of the most difficult and longest in the Alps, it is without danger, in reasonable weather, to experienced mountaineers.

Emil Zsigmondy, a daring climber, lost his life in 1885 (not long after the ascent referred to above) when trying to reach the Brèche Zsigmondy from the south face of the mountain, by the route of the great snow band which is seen to traverse it from east to west. I believe this attempt has not been repeated.

[2] I have left the names in the text as they originally appeared, as otherwise they would not agree with Moore's sketch map at p. 27. The corrections in accordance with modern nomenclature are given in the description of Plate III. Moore's *Glacier de la Brèche* is now known as the *Glacier de la Meije*, his *Glacier de la Lauze* as the *Glacier du Rateau*, and his *Glacier de la Meije* as the *Glacier de Tabuchet*.

[3] The height of the pass is now given as 10,827 feet.

[4] It will be seen that this was the case when Mr. Holmes's photograph (Plate IV.) was taken a few years since.

[5] There is no pass across the ridge of the Meije from south to north, as Moore rightly believed. A number of passes, but none, I believe, of any great interest, lead from the Glacier des Etançons, and from the Etançons Valley across the ridge running southwards from the Meije (seen to the right of Plate IV.), into the Arsine Valley, and so back to La Grave. The *Col du Clot des Cavales* (Moore's *Col des Cavalles*) is the best known of these; it is an old pass.

[6] The energy of the French climbers and of Mr. Coolidge has resulted in the finding of no less than five routes from St. Christophe to La Bérarde over this ridge, between the Rateau and the Plaret.

[7] The various passes mentioned here are all approximately indicated on the sketch map at p. 27. The Ecrins is the highest point in the mountain chain running approximately from north to south from the Meije to Les

Bans (see Plate VI.), a distance of about ten or eleven miles, the greater part of which is seen in the view at the head of chapter iv. The Col des Cavalles (see above), Col de la Casse Déserte, Col des Ecrins, Col de la Temple, and Col du Vallon (I have used Moore's names, although they are now slightly altered), are all passes by which this chain can be crossed, starting at La Bérarde, from west to east. The original proposal seems to have been to cross one of these passes and descend the glaciers east of the Ecrins to the gîte known as the 'Hotel Tuckett,' and attack the Ecrins the next day from the east. Finally, this was overruled, and the night was spent on the western side of the Col des Ecrins, the pass which crosses the ridge nearest to and immediately to the north of the Ecrins itself.

CHAPTER IV

LES ECRINS

Friday, 24th June.—Having gone to sleep in the blissful consciousness that there was not to be an early start in the morning, I never opened my eyes till 8.0 a.m., and immediately closed them again till 9.0, when I shook off dull sloth, and emerged into the open air. On entering Rodier's house, we found that our friend, 'the unblushing one,' had arrived at 5 a.m., having passed the night at St. Christophe. On inquiring why he had not appeared last night, as agreed, he assumed a bilious and generally dilapidated air, and stated that he had been taken so ill on the road that he had actually fainted, and remained for some time insensible, so that he found it quite impossible to get beyond St. Christophe. We were, I regret to say, uncharitable enough not to believe a word of this, and imputed his non-appearance to the fact that he, in common with the other natives of La Grave, had been so firmly convinced that we should be unable to get over the Brèche, and must return, that he had probably not started till we were seen on

the top, and of course had not had time to accomplish the distance, which is very considerable. On opening the knapsacks, it was found that out of a large number of cigars which Walker and Whymper had sent round, at least two-thirds had been purloined *en route*. This was too bad, so Walker said casually to Pic, 'Monsieur Pic, je pense que vous avez fumé beaucoup hier,' to which the fellow replied with an air of surprise and total innocence quite delightful, 'Moi! je ne fume jamais, jamais!' Of course, after that nothing more could be said, but we mentally resolved that if he did not smoke, he chewed, and that pretty vigorously. He certainly acted up to the character he had assumed of a man indisposed, and on that account declined serving as our porter to the top of the Col des Ecrins, saying that otherwise he should have been most happy to accompany us, but that, as it was, he should only be in our way. For once we believed him. We paid him fifteen francs, the sum agreed upon, and let him depart in peace, which he did the same afternoon. It was absolutely necessary to find a porter, so we entered into negotiations with Rodier. He, however, said that his health was so bad that he should be afraid to pass a night in a position so exposed as the top of the Col des Ecrins, and, moreover, advised *us* not to do it either, observing, with perfect truth, that at this early period of the season we should probably find the rocks, which Croz had seen when he crossed with Tuckett, entirely covered with snow. He strongly recommended us to change our plans so far as to sleep at the foot of the steep couloir leading to the Col, instead of at the top of it, assuring us that on the upper plateau of the Glacier de Bonnepierre we should find some admirable sites for a bivouac, and offering to come with us so far with coverings, etc., for fifteen francs. It must be confessed that the idea of a night on the snow with scanty coverings, at an elevation of more than 11,000 feet, preparatory to what would probably be a very hard day's work, was the reverse of inviting, and Rodier's counsel so commended itself to our common sense, that, with the full concurrence of Croz and Almer, we agreed to his proposition, and ordered him to prepare all the coverings, and boil all the eggs, that could be collected in La Bérarde.

The situation of La Bérarde itself is most uninteresting, as, although standing in a little plain at the junction of three valleys, there is neither a single glacier nor any peak of importance visible from it. The tourists who occasionally come up from Bourg d'Oisans, and look upon it as the end of the world, must be most grievously disappointed. It stands very high, 5702 feet according to the French map, so that vegetation is stunted and scanty, while the pine forests, which in the Swiss Alps give such a charm to the lower slopes of the mountains, are here entirely wanting, their place being supplied by long dreary slopes of stones and débris, as displeasing to the eye as they are ruinous to the feet and boots.

The morning was passed in superintending the preparations of the commissariat, the staple of which was eggs, and in discussing the weather, which, though still very fine, showed signs of changing, a large mass of cloud at the bottom of the valley, towards St. Christophe, making strenuous, but fortunately so far ineffectual, efforts, to force its way up to our more elevated regions. Rodier managed to collect sundry most suspicious-looking coverings, and at last all was declared ready; so, after another meal of hot milk, we started at 1.20 p.m., the larger portion of our personal effects being left in charge of Madame Rodier to await our return, which we hoped would take place on the following Monday. La Bérarde is in the angle formed by the junction of the torrents from the Vallon des Etançons and the Vallon de la Pilatte, and our route lay up the left bank of the stream from the first-named valley. For some distance there was a fair though rough and stony path, which mounted rapidly towards the entrance of the short Vallon de Bonnepierre[1] over steep slopes of wretched grass and stones; but, as we climbed, the track gradually vanished, leaving us to choose the line of march which pleased us best. At this time of the day the grind was severe, and no one seemed at all inclined to force the pace or to object to a short halt when the first, and, as usual, steepest part of the ascent was accomplished. In front of us the fine Glacier de Bonnepierre showed its extreme end, covered from bank to bank with moraine, while below it dreary slopes of stones stretched downwards in the usual fan-shape

towards the main valley. Amongst this mass of débris the torrent from the glacier forced its way, not in one grand stream, but in several considerable ones, and as we had to get over somehow to the opposite or right side of the Vallon, we looked anxiously out for a favourable spot to effect the passage. When Tuckett first crossed the Col des Ecrins[2] *from* Val Louise, he encountered considerable difficulty here, and got thoroughly soaked, a catastrophe which it was most important for us to avoid, as the consequences of a bivouac at a great elevation in wet garments might be serious, putting aside the discomfort of such a state of things. We saw no point that pleased us for some time, but at last, when not far from the foot of the glacier, we struck down to the bank of the first torrent, and commenced the passage. There were four distinct streams, separated by high moraine-shaped mounds of stones, and we contrived to pass them all in succession with less difficulty than we had expected, and without a serious wetting. Tuckett crossed a good deal lower down, after the streams had coalesced, but I should think that our route would always be found preferable. The torrents passed, we took at once to the enormous moraine of the Glacier de Bonnepierre, one of the most extensive I ever saw, and quite as unpleasant to traverse as most of its kindred. We thought it well, however, to reconcile ourselves to the inevitable, as Rodier informed us that we should have very little relief from it, until we reached our proposed night-quarters. We shortly diverged for a time on to the slopes of the valley on our left, and worked along them, collecting, as we went, quantities of dry juniper branches, wherewith to make a fire up above. Croz and Almer loaded themselves with such a mass of these, that, as they walked side-by-side, they looked just like a perambulating shrubbery, presenting an appearance that would have been very alarming to a person of Macbethian turn of mind. Having secured wood enough to keep up a roaring fire all night long for a week if necessary, we returned to the moraine, which now rose very steeply in front. We toiled up it, expecting momentarily to find a level spot again where we could rest, but the further we mounted the more distant did the summit-level appear,

until, at 3.25, we halted in despair. Unfortunately, while we had been mounting, the clouds had not been idle. The high peaks in front were all enveloped, while behind us the great mass, which had been struggling all day to force a passage up the valley, appeared at last to have succeeded; La Bérarde was already obscured, and the enemy was slowly but surely creeping up to us. This untoward state of affairs compelled us to shorten our halt, and at 3.35 we resumed our march along the moraine, which soon became more level, and had alongside of it a companion like unto itself. We were getting along pretty rapidly, when down, or up, came the mist, and enveloped us instantaneously in its clammy folds. This at first did not check our pace, but Croz and Rodier soon showed by their manner that they were uncertain of their ground, and, finally, at 4.5, Croz honestly admitted that he was uncertain whether we ought to go to the right or to the left, or straight forwards, and that we had better wait a little in hopes of a clearance, or at least a temporary lift. So down we sat not feeling particularly happy in our minds, yet trying to persuade ourselves that the mist was merely local, and that we should soon get rid of it. Croz, meanwhile, was evidently thinking hard, and endeavouring to recall his recollection of the ground, and at last, at 4.25, came to the conclusion that we could not go very far wrong by keeping straight forwards along the moraine as far as possible; so off we went again in the direction indicated. The moraine had hitherto been pretty much like other moraines, neither more nor less objectionable, but it now assumed a specially detestable character, narrowing to a mere knife-edge of hard grit, along the top of which we must perforce go, as the slope on either side was too steep to give footing without the use of the axe. A painful series of Blondin-like manœuvres had to be gone through in order to pass along this objectionable arrangement, but all my care could not prevent me from coming down several times in a straddling position on the narrow edge, an attitude certainly unpleasant, but agreeable compared with the consequences of adopting the only alternative, viz., rolling on either side down to the crevassed glacier at an unpleasant depth below. I, for one was not sorry

when the moraine expanded into a level space, covered with loose masses of rock, some of enormous size, and piled one upon another, in a manner that suggested any number of charming sites for a bivouac. The mist remained as thick as ever, but we could not be very far from the head of the glacier, and we might not find so eligible a spot further on, so it was resolved to pitch our tent amongst these hospitable stones, and at 5.0 p.m. the traps were deposited, and every man started off to find a hole big enough to hold the whole party, or, failing that, a burrow for himself.

Walker and I went off together, and although unable to find a 'Grand Hotel,' discovered a small 'Auberge,' containing just sufficient accommodation for two, which we at once resolved to appropriate to ourselves. Several rocks had fallen together, forming a perfect hole, with a not too wide entrance, and the floor sunk considerably below the general level, so that we had to get down into it, and, once in, were completely sheltered from any wind that could blow. The floor, indeed, had been left in a horribly unfinished state, but, by getting rid of some of the sharp-pointed stones, and replacing them by flat ones, we hoped to improve matters so as to make it tolerably comfortable. We were working away, and the place was beginning to assume quite a palatial aspect, when the mist suddenly lifted a little, and disclosed a somewhat similar patch of rocks a considerable distance further on. The guides at once determined to go on there, so all our labour was thrown away, and at 5.25 we somewhat sulkily turned our backs on our 'Auberge,' picked up our respective loads, and went on our way. After all, it was scarcely worth while moving, as in ten minutes, at 5.35, our goal was reached, and we halted for good under a huge mass of rock, inclined at a slight angle with the ground, which was at once selected as headquarters. By comparison, however, with our abandoned *gîte*, the place was wretched, so Walker and I went prowling about to see if we could not find something better. Our search was long fruitless, and we had a highly exhilarating scramble over the neighbouring rocks before we found what we liked in the shape of a hole, similar to our former one, but less extensive, requiring much more arrangement, and altogether less satisfac-

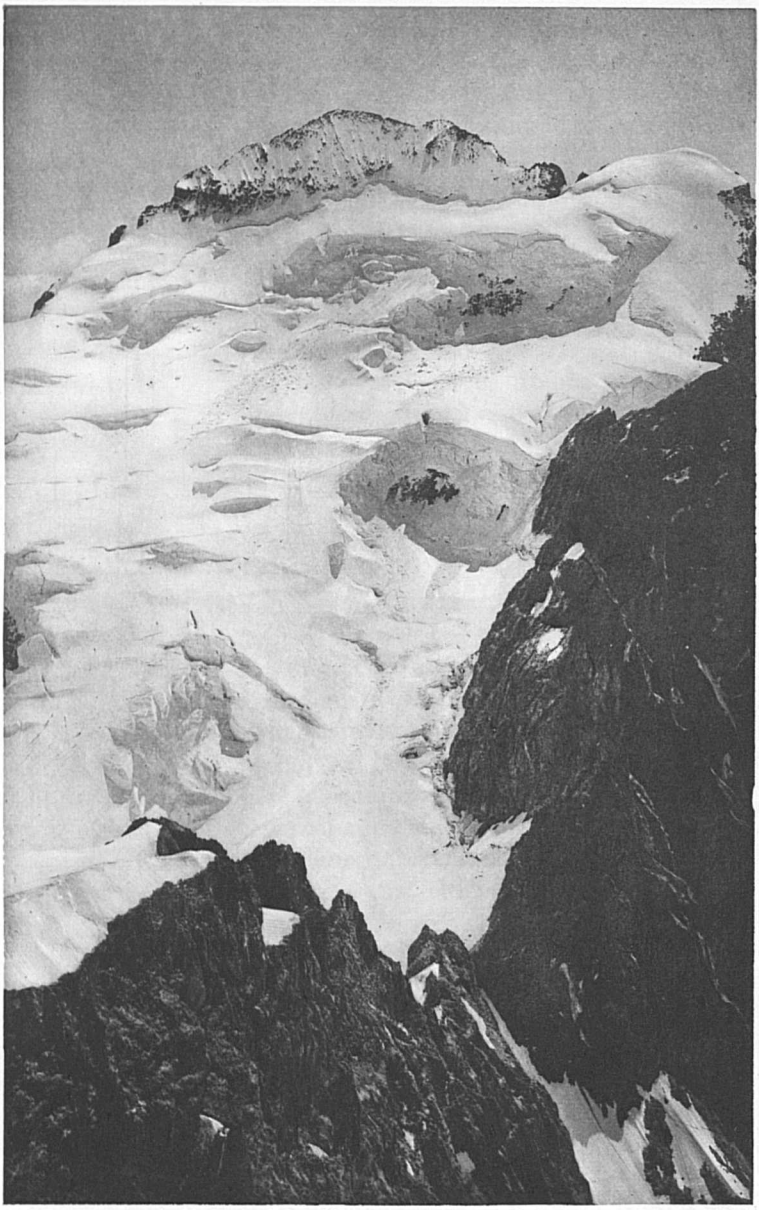
tory. Still nothing better was forthcoming, so we set to work arranging the floor. The shape of the hole was such that we should be obliged to lie with our heads towards the entrance, and therefore not so much sheltered as we could have wished, but still fairly protected against everything but heavy rain, which was scarcely to be expected. The levelling of the floor was a rather difficult operation, and the result after all was only negatively good. By placing ourselves as we intended to lie at night, we found out what was wanted, and managed—not to make a smooth couch, that was impossible—but to arrange the stones so that they fitted pretty well into the crevices and sinuosities of our respective carcases.

While engaged in our building operations, the mist that enveloped the glacier and surrounding peaks was becoming thinner; little bits of blue sky appeared here and there, until suddenly, when we were standing before our front entrance, and looking towards the head of the glacier, far, far above us, at an almost inconceivable height, in a tiny patch of blue, appeared a wonderful rocky pinnacle, bathed in the beams of the fast-sinking sun. We were so electrified by the glory of the sight that it was some seconds before we realised what we saw, and understood that that astounding point, apparently miles removed from earth, was one of the highest summits of Les Ecrins, and that we hoped, before another sun should set, to have stood upon an even loftier pinnacle.* As the mist gradually cleared away, and disclosed the spotless fields of névé, forming the upper plateau of

* I do not think the position of the Ecrins, with reference to the surrounding glaciers, has ever been quite exactly described. The mountain has three summits, whose respective heights are 13,462, 13,396, and 13,058 feet, but the second is very insignificant, and scarcely worthy of distinct recognition. The highest summit does *not* look down upon the Bonnepierre Glacier, and is not, I believe, visible from it. The noble pinnacle of rock, which is so imposing from that glacier, is the third summit, which, on the side of the Glacier de l'Encula, shows as a dome of snow. A rugged ridge stretches in a westerly direction from this peak, and separates the Glacier de Bonnepierre from the parallel Glacier du Vallon. The highest summit does not lie on the watershed at all, but in the ridge thrown out from it to the eastward between the Glacier de l'Encula and the Glacier Noir. To the west of the highest point is the so-called second summit, which is a mere projection from the ridge. This *is* on the watershed, and overhangs the Glacier du Vallon. A glance at the map will make these details clear.[3]

the Glacier de Bonnepierre, and the wall of cliff rising from it, crowned by a ridge, broken into the most fantastic forms and peaks, I thought I had never gazed upon so sublime a scene; and writing now in cool blood, and after witnessing other glorious spectacles, I am not disposed to change my opinion. The mists rose and fell, presenting us with a series of dissolving views of ravishing grandeur, and finally died away, leaving the glacier and its mighty bounding precipices under an exquisitely pale blue sky, free from a single speck.

We saw, to our no small satisfaction, that Croz had steered discreetly, and that the steep couloir leading to the Col des Ecrins was very slightly to our left, only separated from us by a perfectly level field of névé. On going up to headquarters, we found that Whymper had constructed a charming *gîte* for himself close at hand, and that the men, having built a low wall of stones round their position, had lit a fire, and were now busy making preparations for supper. Not far off we found a tolerably copious stream of water, so, proceeded to boil up a lump of portable soup we had brought from England, together with half a cake of 'Chollet's' compressed vegetables. From preliminary trial in London, we had discovered that, at the best, this concoction only produced a scalding liquid, with a very strong taste of nothing in particular, and a very slight one of meat and vegetables, and that to obtain even this result large quantities of salt must be thrown into the mixture. We were, therefore, disgusted, though scarcely surprised, to find that not a grain of that article had been brought with us, and that our *potage* must go without seasoning. The labour of boiling it was considerable, as the fire manifested at first a strong desire to go out altogether, and then persisted in burning most fiercely just at the point where the pot was not, a difficulty which was got over by two of the party on opposite sides keeping up a vigorous blowing with their hats, so as to drive the flame into the middle, and the smoke into each other's eyes. At last the soup boiled, and though the most partial cook could not call it nice, it was at least warm and comforting. From our position there was a delicious echo from the cliffs of the Ecrins. The answer came, not immediately after the call, but after the lapse



THE ECRINS.

of a considerable interval, when no reply was expected, and in a note wonderfully clear and musical. It was dark before our supper was at an end, and, in spite of the fire, we soon found ourselves getting chilly, a fact not to be wondered at, seeing that our quarters could not be much lower than 9500 feet. I accordingly took off my boots, put on a pair of warm sleeping socks and a pair of slippers, buttoned up my coat, tied my hat down over my ears with a handkerchief, and then, with Walker, went down to our hole, accompanied by Almer bearing two blankets, which, in spite of our remonstrances, he and Croz insisted that we should have. One blanket was placed over the stones, on the top of which we, wrapped in our plaids, took up our position, the other blanket and my macintosh sheet were then thrown over all, Almer wished us good-night, and we were left to our meditations. I cannot honestly say that our couch was comfortable, as notwithstanding all our exertions, one or two impracticable stones had been left, which touched us up most unmercifully between the ribs. Moreover, without disarranging all the coverings, it was almost impossible to vary the position we had first taken up, and a cautious wriggle was the only movement either of us could venture to indulge in. Much sleep was, therefore, not to be thought of, and for a very long time we both lay silent, but very wide awake, meditating upon what the morrow was likely to bring forth. At last, however, Walker's heavy breathing announced that he had dropped off, and shortly afterwards I myself lapsed into a happy state of oblivion.

Saturday, 25th June.—Shortly after midnight I woke, and, moving my head, could see the vast cliffs of the Ecrins, bathed in the light of the moon, which was fast approaching the last quarter. The effect was wonderful, and was enhanced by the solemn, and almost oppressive silence that reigned around us. There was not a sound, and we might have been miles away from any other human being but ourselves. Suddenly, and without any sort of warning, the silence was broken by the thunder of what must have been a gigantic avalanche falling from the other side of the Ecrins. The reverberation had scarcely died away, when — crash! the echoes were again aroused by a still more tremendous fall, the sound from which

rose and fell for many minutes before absolute silence again prevailed. We waited anxiously, hoping for yet another fall, but we hoped in vain, and nothing more occurred to disturb the tranquillity around. I don't think that either of us got much more sleep after this, but we lay, getting momentarily colder and more uncomfortable, until 3 a.m., when the voice of Almer, up above, was wafted down to us in a very good imitation of the early village cock. We were nothing loth to move, so throwing off the coverings, we emerged from our den into the open air, and made our way up, over some patches of snow which had frozen hard in the night, and required some art to cross in slippers to headquarters, where we found a blazing fire, with some wine warming over it, and round it the rest of the party looking particularly cold and sleepy. Whymper had passed the night pretty much as we had, but I fancy that the men had not had much sleep, and had found it sufficiently cold. One of the greatest objections to a bivouac is, that it is impossible to persuade the guides to make anything like an impartial distribution of such coverings as there may be. They invariably leave themselves with almost nothing, in their anxiety for the comfort of their employers. I have never, however, heard a good guide utter a syllable on the subject of his nocturnal discomforts, and Almer and Croz, and even Rodier, were no exceptions to the rule; on the contrary, they were certainly the most cheerful members of the party. The hot wine put life into us all, and after forcing some bread and butter down our throats, we made preparations for a start. Everything not likely to be required was left for Rodier to take down to La Bérarde, amongst other things my macintosh sheet. I had intended to get rid of my plaid also, but on second thoughts, determined to be prudent, and retain it, especially as, carried on my back like a knapsack, in a very convenient arrangement of straps I had had made in England purposely, it would cause me very slight inconvenience. At last all was ready. The superfluous wood was laid in a heap for the benefit of future comers, if there should ever be any; we paid Rodier, who gave us an emphatic, but quite unnecessary, caution to be careful; and at 3.55 a.m. left our refuge, all roped carefully together, Croz leading.

It was a glorious morning, the sky cloudless, and the atmosphere perfectly still, so that as regarded weather our prospects could not have been more favourable. Personally, I felt anything but fresh and up to work, as usual, after a night on hard stones, from which, even under the most propitious circumstances, very little real rest can be derived. The exposure is a trifle, but the cruel hardness of the couch tells severely. Picking our way over a wilderness of stones, we were soon on the glacier, which was very slightly inclined, and completely covered with snow. Not a crevasse was visible, and we had no difficulty in pushing on at a good pace towards the foot of the couloir up which lies the only means of egress from the glacier. Though not so mysterious and imposing under the matter-of-fact morning light as they had appeared last night when partially veiled by mists, the long line of cliffs which hem in the head of the Bonnepierre Glacier is singularly grand. From the Roche Faurio[4] to and beyond Les Ecrins, the mighty wall is seamed with numerous snow couloirs, of varying breadth and steepness, of which all, save the one which, by a merciful dispensation of providence, leads up to the very lowest point in the ridge, are probably impracticable. Not that the appearance of even this is by any means fascinating. On the contrary, as we approached it, it assumed an aspect more and more repulsive, and appeared both steeper and loftier than we had supposed from a distance. In less than an hour of easy walking we were close to the foot of the wall. We were now obliged to make frequent short halts to take breath, the slope being scarcely steep enough to render step-cutting absolutely necessary, yet too steep for us to progress, except most laboriously, without it. At length, after rounding a patch of rocks, we were fairly committed to the couloir, which was of the usual funnel shape, tolerably broad at the bottom but gradually narrowing, until at the top it became a mere cleft. Once in this limited channel, *our* work became easy and pleasant enough, as we had simply to put our feet in the steps which Croz and Almer cut, but the two latter, doubtless, looked at the matter from rather a different point of view. The couloir was fortunately not filled with ice, or we should have taken hours to scale it, but with very hard snow, in which

steps had to be cut, but with a far less expenditure of labour than would have been required by ice. Nevertheless it was a long and toilsome piece of business, and, looking down, it seemed a very long time before we had made any perceptible way. The greatest care had to be exercised, and the steps cut large and deep, as the slope was formidably steep, and a slip on to those nasty jagged rocks which we had passed below would have made a summary end of our expeditions. I tried the angle with my clinometer in two separate places, and found it to be 52° and 54°. I don't think it ever varied much, so that, even had the footing not been so precarious, the mere labour of lifting oneself from step to step on such a slope would have been considerable. All this time we were completely in the shade, and found the temperature uncomfortably cold, especially for our hands and feet, which were also brought into contact with the ice of the couloir. But our men worked admirably, one hewing out the rough step first, the other improving and polishing it up for us, so that except by gross carelessness, we could not well slip. The narrow gap, which from below had seemed so high above us, sensibly diminished its distance, the channel in which we were became more and more confined, near the top a little soft snow helped us on, and at 5.55 a.m., just two hours from our *gîte* the final step was cut, and we stood on the Col des Ecrins, a mere cleft in the ridge between the Roche Faurio to the north, and the Ecrins to the south.

In spite of the great elevation of this point (11,206 feet, according to Tuckett's observations), the distant view on either side is very inconsiderable; the real attraction is the extraordinary difference in the character of the ground on the east and west sides. On the west we had just mounted by a very precipitous couloir, certainly not less than 1200 feet in height, while on the east a gentle slope fell away very gradually to an exquisitely pure field of névé, extending almost on a level for a great distance in front. This is called on the French map Glacier de l'Encula, but is really nothing more than the upper plateau of the Glacier Blanc. The ridges that bound it right and left are very striking, the Crête de l'Encula, running out from the Ecrins, and the Crête du Glacier Blanc, from the

Roche Faurio; the former especially is a wonderful mass of crag and broken glacier. Straight in front, beyond the Glacier Blanc, the most prominent object was a remarkably fine mountain,[5] with a rocky summit, which had also attracted our attention from the Col des Aiguilles d'Arves and the Bec du Grenier. This appeared to agree in position with a peak considerably to the east of the Col du Glacier Blanc, called on the French map Pic Signalé, which is equivalent to no name at all, as the unimaginative engineers have applied the same title to some dozen peaks in the Dauphiné Alps. It attains a height of 12,008 feet, and is well worthy the attention of mountaineers. Overhanging Monetier, between Briançon and the Hospice du Lautaret, it might, perhaps, be most advantageously attacked by the Glacier du Casset. Immediately to the north of the Col rose the Roche Faurio, 12,192 feet in height, which, if accessible, must command a most interesting view, as it stands in the angle between three very extensive glaciers, de la Bonnepierre, de la Platte des Agneaux, and de l'Encula. But to the south of the Col was the object on which our thoughts were intent. There rose the monarch of the Dauphiné Alps, the highest summit in France proper—the Pic des Ecrins, soaring to a height of 13,462 feet, or 2256 feet above our position. A greater contrast than that presented by this mountain, as seen from the side of La Bérarde, and as seen from the Glacier de l'Encula, can scarcely be imagined. The western face of the peak that falls to the Glaciers de Bonnepierre and du Vallon is one of the sheerest precipices in the Alps; neither glacier nor snow can find a resting-place on it, while the eastern face, on which we were now looking, is entirely covered with snow and glacier, steep certainly, but not excessively so. The final peak seemed to be defended by an ugly bergschrund, above which rose, what appeared from below to be a by no means lofty nor steeply-inclined wall of snow or ice, seamed here and there with ribs of rock protruding very slightly from the surface of the snow. In fact, the mountain on the eastern side seemed as easy of access, as from the west it had appeared impracticable, and, had we not been warned by the misfortunes of our predecessors, we should have certainly looked upon the work before us with contempt.

As it was, we estimated that, under the most unfavourable circumstances, four hours would see us on the top, and two hours and a half more back again at the Col.

The exciting ascent of the couloir had freshened us up wonderfully, and although, under ordinary circumstances, it would scarcely have been eating time, we felt the effects of our scanty meal at starting, and now, while studying the view, were quite ready for the contents of the provision bag. At 6.25 we turned up in the direction of the peak, but in a few minutes again halted to deposit the *impedimenta* in the shape of knapsacks, plaids, etc., to await our return. Almer filled with snow a metal vessel we had, and set it up, in hopes that the sun, which was already powerful, would have melted it by the time we descended. Then we fairly bent our minds and legs to the work before us, and, Croz leading, started up the steep slopes of névé, bearing rather to the left.[6] The object of this course was to avoid some enormous ice-cliffs which towered in the most threatening manner high up on the right, and which gave us palpable evidence of their capability for mischief in the shape of a vast tract of recent débris, across which we had to flounder. This was very likely the result of the two falls, the noise of which had so startlingly broken upon our repose. Although the slope up which we were mounting presented not the slightest difficulty in itself, it was sufficiently steep to make the ascent laborious, and we found it necessary to make frequent short halts for breath. The snow was in first-rate order; indeed, we should have been better pleased had it been not quite so good, as a more moderate pace must have been kept. We were obliged to cut round the edge of an occasional crevasse, but, on the whole, this part of the mountain was very much less broken up, and altogether easier than, from the accounts of our predecessors, we had expected to find the case. This was very likely owing to the almost unprecedentedly large quantity of snow which there appeared to be this year in the high Alps. It stood us in good stead on the Brèche de la Meije, and now, again, undoubtedly gave us no small assistance. The result was, that we mounted rapidly. Already the lofty ridges which enclose the Glacier de l'Encula had sunk beneath us, and over the northern of these

ridges the three Aiguilles d'Arves, the great mass of the Graians, and, above all, the towering form of Mont Blanc, once again greeted us. It must be confessed that the higher we climbed, the greater became our contempt for our peak. It certainly seemed that, once over the bergschrund, we ought very soon to be on the top, and so persuaded was I of this, that I hazarded the opinion that by 9.30 we should be seated on the highest point. Whymper alone was less sanguine; and, probably encouraged by the result of his former bet, on hearing my opinion, offered to bet Walker and myself two francs that we should not get up at all, an offer which we promptly accepted. We were now sufficiently near to the bergschrund to be able to form some idea of its nature and difficulty. It certainly was a formidable-looking obstacle, running completely along the base of the final peak, or rather ridge from which the peak itself rose. For a long distance the chasm was of great width, and, with its upper edge rising in a wall of ice, fringed with icicles, to a height of, perhaps, thirty feet above the lower edge, was obviously quite impassable. But on the extreme right (looking up), the two lips so nearly met that we thought we might be able to get over, and on the extreme left, it seemed possible, by a considerable détour, to circumvent the enemy, and get round his flank. We finally determined on the latter course, as, to the right, the slope above the chasm seemed to be steeper than at any other point. After the first start, we had been steering tolerably straight forwards up the centre of the glacier and were now approaching the bergschrund, just under the highest peak of the mountain, at about its most impracticable point. The more direct course would have been to attack it on the right, but, for the reason above stated, we chose the opposite end, so had to strike well away to the left diagonally up the slope. We here first began to suspect that our progress would not be quite so easy and rapid as we had hoped, as the snow became less abundant, and the use of the axe necessary. Still we worked away steadily, until, at 8.10 a.m., in one hour and forty minutes from the Col, we turned the bergschrund, and were fairly on its upper edge, clinging to an ice-step which promised to be only the first of an unpleasantly long series.

Above us the slope stretched up to some rocks, which continued without interruption to the main ridge, a prominent point on which was just above our heads. The rocks looked quite easy, and it seemed that, by making for them just under the small peak, we should be able to work round the latter, and get on to the main ridge to the right of it without serious difficulty. Almer led, and wielded his axe with his usual vigour, but the ice was fearfully hard, and he found the work very severe, as the steps had to be cut sufficiently large and good to serve for our retreat, if need be. After each blow, he showered down storms of fragments, which came upon the hands and legs of his followers with a violence that rendered their position the reverse of pleasant. Still the rocks kept their distance, and it was a long time before we scrambled on to the lowest of them, only to find that, although from below they had appeared quite easy, they were in reality very steep, and so smooth that it was scarcely possible to get along them at all, the hold for hands and feet being almost *nil*. The rocky peak, too, above us turned out to be much farther off than we had supposed, and, to reach the point on the main ridge to the right of it, we had before us a long and difficult climb up and along the face of the rocks. The prospect was not pleasant, but we scrambled along the lower part of the rocks for a short time, and then Almer started off alone to reconnoitre, leaving us rather disconsolate, and Walker and myself beginning to think that there was a considerable probability of our francs, after all, finding their way into Whymper's pocket. Croz did not approve of the rocks at all, and strongly urged the propriety of getting down on to the ice-slope again, and cutting along it above the bergschrund until we should be immediately under the peak, and then strike straight up towards it. He accordingly cast loose the rope, and crawling cautiously down, began cutting. I am not very nervous, but, as I saw him creeping alone over the ice-covered rocks, I felt an unpleasant qualm, which I was doomed to experience several times before the end of the day. Just as Croz had begun to work Almer returned, and reported that things ahead were decidedly bad, but that he thought we could get on to the arête by keeping up the rocks. We passed his opinion down to

Croz, and, while he was digesting it, we communicated to Almer what Croz had been saying to us. Now, up to the present time no two men could have got on better, nor more thoroughly agreed with each other, than Croz and Almer. We had been slightly afraid that the natural antipathy between an Oberlander and a Chamouniard would break out upon every occasion, and that a constant series of squabbles would be our daily entertainment. We were, however, agreeably disappointed, as Almer displayed such an utter abnegation of self, and such deference to Croz's opinion, that had the latter been the worst-tempered fellow in the world, instead of the really good fellow that he was, he could not have found a cause of quarrel. Upon this occasion, although Almer adhered to his own opinion that it would be better to keep to the rocks, he begged us to follow the advice of Croz, who was equally strong in favour of the ice, should he, on further consideration, prefer that course. Croz protested emphatically against the rocks, but left it to us to decide, but in such a manner that it was plain that a decision adverse to his wishes would produce a rumpus. The position was an awkward one. The idea of cutting along a formidably-steep slope of hard ice immediately above a prodigious bergschrund was most revolting to us, not only on account of the inevitable danger of the proceeding, but also because of the frightful labour which such a course must entail on the two men. On the other hand, a serious difference with Croz would probably destroy all chance of success in our attempt. So convinced, however, were we that the rocks offered the most advisable route that we determined to try the experiment on Croz's temper, and announced our decision accordingly. The effect was electric; Croz came back again in the steps which he had cut, anger depicted on his countenance, giving free vent to the ejaculations of his native land, and requesting us to understand that, as we had so chosen, we might do the work ourselves, that he would do no more. Affairs were evidently serious, so each of us cried 'peccavi,' and, to calm his irritation, agreed, it must be confessed against our better judgment, to adopt his route. Almer was more amused than annoyed, and concurred without a word, so the storm blew over; the sky was again clear, and we resumed our labours,

which, during the discussion, had been suspended for a few minutes.

The half-dozen steps that led us on to the ice were about the most unpleasant I ever took. The rocks were glazed with ice; there was nothing in particular to hold on by, and without the trusty rope I should have looked a long time before trusting myself to move. As it was, I was very considerably relieved when we were all standing in the steps, and Croz, again roped on to us, began, at 9.35, to cut in front. I must do him the justice to say that, so soon as we were committed to his line of march, he worked splendidly, bringing the whole force of his arm to bear in the blows with which he hewed the steps. Never halting for a moment nor hesitating, he hacked away, occasionally taking a glance behind to see that all was right. We could not but admire the determination with which he laboured, but the exertion was fearful, and we became momentarily more of opinion that our original decision was the wisest. The slope on which we were, was inclined at an angle of 50°, never less, sometimes more, for the most part of hard blue ice, bare of snow. This was bad enough; but far worse were places which we occasionally came to, where there was a layer of soft, dry, powdery snow, without cohesion, so that it gave no footing, and steps had to be cut through it into the ice below—steps which were filled up almost as soon as cut, and which each man had to clear out with his hands before trusting his feet in them. All the time the great bergschrund yawned about a hundred feet below us, and the knowledge of this fact kept us well on the alert, although, from the steepness of the slope below, the chasm itself was not visible. One hears people talk occasionally of places where the rope should not be used, because one person slipping might entail the loss of the whole party; but I never heard a guide give vent to any such idea, and certain I am that had any one of us now proposed to take off the rope and go alone on that account, Almer and Croz would never have allowed it, and, indeed, would not have advanced another step. It must be admitted, however, that, all along this slope, had one of us unfortunately slipped, the chance of the others being able to hold him up would have been very small, and the probability of the

party in their fall being shot over instead of into the bergschrund still smaller. But, in my opinion, the use of the rope on such places gives so much more confidence, if it is no real protection, that the chances of a slip are much diminished, and certainly a party can progress more rapidly. For an hour Croz kept on his way unwearied, cutting the steps for the most part beautifully, but occasionally giving us rather a long stride, where every one held on like grim death, while each man in succession passed. But at last even his powerful frame required rest; so Almer relieved him, and went to the front. All this time we had risen but little, but we were now very nearly under the highest peak, and it was necessary to think of getting on to the ridge; so we at last fairly turned our faces to the slope, and began cutting straight up what appeared to be a great central couloir. Unlike most couloirs, this one did not run without interruption to the ridge above, but came to an abrupt termination at a considerable distance below it, leaving an intervening space of rock which promised some trouble. But we were yet far from the lowest point of these rocks, and every step towards them cost no small amount of time and labour. I have rarely been on harder ice, and, as blow after blow fell with so little apparent result in raising us towards our goal, an inexpressible weariness of spirit and a feeling of despair took possession of me. Nevertheless we *did* mount, and, at 11.30, after two hours of terribly hard work (for the guides), we grasped with our hands the lowest of the crags. To get on them, however, was no easy task, as they were exceedingly smooth, and coated with ice. Almer scrambled up, how I know not, and, taking as much rope as possible, crawled on until he was *fest*, when, by a combined operation of pulling from above and pushing from below, each of us in turn was raised a few steps. We hoped that this might be an exceptional bit, and that higher up matters would improve. But it was a vain hope; the first few steps were but a foretaste of what was to follow, and every foot of height was gained with the greatest difficulty and exertion. As we climbed, with the tips of our fingers in some small crevice, and the tips of our toes just resting on some painfully minute ledge, probably covered with ice or snow, one question gradually forced itself upon us, almost

to the exclusion of the previously absorbing one, whether we should get to the top of the mountain, and this was, how on earth we should ever get down again—get down, that is to say, in any other state than that of débris. The idea that it would be possible to descend these rocks again, except with a rush in the shape of an avalanche, seemed rather absurd; and at last, some one propounded the question to Almer and Croz, but those worthies shirked the answer, and gave us one of those oracular replies which a good guide always has at the tip of his tongue when he is asked a question to which he does not wish to give a straightforward response, to the effect that we should probably get down somehow. They were, perhaps, of opinion that one thing at a time was sufficient, and that they had work enough to settle the question of how we were to get up. Our progress was unavoidably slow, and the positions in which one was detained, while the man in front was going the full length of his tether, were far from agreeable; while hanging on by my eyelids, the view, seen between my legs, of the smooth wall of rock and ice on which we had been so long engaged, struck me as being singularly impressive, and gave me some occupation in discussing mentally where I should stop, if in an oblivious moment I chanced to let go. But to all things must come an end, and, at 12.30 p.m., with a great sigh of relief, we lifted ourselves by a final effort on to the main ridge, which had so long mocked at our efforts to reach it, and, to our huge delight, saw the summit of the mountain on our right, led up to by a very steep arête of rocks, but evidently within our reach.

The work of the last four hours and a half had been so exciting that we had forgotten to eat, and, indeed, had not felt the want of food; but now the voice of nature made itself heard, and we disposed ourselves in various positions on the ridge, which in many places we might have straddled, and turned our attention to the provisions. As we sat facing the final peak of the Ecrins, we had on our left the precipice which falls to the head of the Glacier Noir. Without any exaggeration, I never saw so sheer a wall; it was so smooth and regular that it might have been cut with a knife, as a cheese is cut in two. Looking over, we saw at once that, as we had thought probable, had we

been able to get from La Bérarde on to the ridge at the head of the Glacier du Vallon, it would have been impossible to get down on to the Glacier Noir, as the cliffs are almost as precipitous as those down which we were looking. On the right bank of the Glacier Noir towered the dark crags of the Pelvoux, Crête du Pelvoux, and Ailefroide, a most glorious sight, presenting a combination of, perhaps, the finest rock-forms in the Alps; I certainly never saw so long and steep a line of cliffs, rising so abruptly from a glacier.

At 12.50 we started again, Almer leading. We had first to cross a very short but very narrow neck of snow, and Almer had scarcely set foot on this, when a great mass of snow, which had appeared quite firm and part of the ridge, suddenly gave way, and fell with a roar to the Glacier Noir below. Almer's left foot was actually on this snow when it gave way. He staggered, and we all thought he was over, but he recovered himself, and managed to keep steady on the firm ridge. It is true he was roped; but the idea of a man being dropped with a sudden jerk, and then allowed to hang suspended, over that fearful abyss, was almost too much for my equanimity, and for the second time a shudder ran through my veins. This little isthmus crossed, we tackled the rocks which rose very steeply above our heads, and climbed steadily up along the arête, generally rather below the edge, on the side of the Glacier de l'Encula. The work was hard enough, but easier than what we had gone through below, as the rocks were free from ice, and the hold for hands and feet was much better, so that there was no fear of slipping. I don't think a word was said from the time we quitted our halting-place until we were close to the top, when the guides tried to persuade us to go in front, so as to be the first to set foot on the summit. But this we declined; they had done the work, let them be the first to reap the reward. It was finally settled that we should all go on together as much as possible, as neither party would give way in this amicable contest. A sharp scramble in breathless excitement ensued, until, at 1.25 p.m., the last step was taken, and we stood on the top of the Ecrins, the worthy monarch of the Dauphiné Alps.

In that supreme moment all our toils and dangers were for-

gotten in the blissful consciousness of success, and the thrill of exultation that ran through me, as I stood, in my turn, on the very highest point of the highest pinnacle—a little peak of rock with a cap of snow—was cheaply purchased by what we had gone through. Close to us was a precisely similar point, of much the same height, which scarcely came up to the rank of a second summit. It could have been reached in a few seconds from our position, but, as our point was actually the highest of the two, and was also more convenient for sitting down, we remained where we were. I must confess to a total inability to describe the wonderful panorama that lay extended before us. I am not one of those happily constituted individuals who, after many hours of excitement, can calmly sit on the apex of a mountain, and discuss simultaneously cold chicken and points of topography. I am not ashamed to confess that I was far too excited to study, as I ought to have done, the details of a view, which, for extent and variety, is altogether without a parallel in my Alpine experience. Suffice it to say that over the whole sky there was not one single cloud, and that we were sitting on the most elevated summit south of Mont Blanc, and it may fairly be left to the imagination to conceive what we saw, as, at an elevation of 13,462 feet, we basked in the sun without the cold wind usually attendant at these heights. There was not a breath of air, and the flame of a candle would have burnt steadily without a flicker. In our immediate neighbourhood, after the range of the Pelvoux, before described, the most striking object was the great wall of the Meije, the western summit of which from here came out distinctly the highest. The Aiguilles d'Arves stood out exceedingly well, and, although 2000 feet lower than our position, looked amazingly high. Almost the only trace of civilisation we could distinctly make out was the Lautaret road, a portion of which, probably near the entrance of the valley leading to the Glacier d'Arsines, was plainly visible. On the side of the mountain towards La Bérarde, what principally struck us was a very great and extensive glacier, apparently not marked on the map, which appeared to be an arm of the Glacier du Vallon, but far more considerable itself than the whole glacier is depicted on the French map. Of the extent of the view, and

the wonderfully favourable condition of the atmosphere, a fair idea may be gained from the fact that we clearly identified the forms and ridges of the Matterhorn and Weisshorn, the latter at a distance of 120 miles, as the crow flies, and that those were by no means the most distant objects visible.

So soon as the first excitement consequent on success had subsided, we began seriously to meditate upon what during the ascent had frequently troubled us, viz., the descent. With one consent we agreed that unless no other route could be found, it would be most unadvisable to attempt to go down the way we had mounted. The idea of the rocks, to be followed by the ice-slope below, in a doubly-dangerous state after being exposed all day to the scorching sun, was not to be entertained without a shudder. The only alternative route lay along the opposite arête to that which had led us to the top, and, although we could not see far in this direction, we determined, after very little discussion, to try it. Accordingly, after twenty minutes' halt, we each pocketed a small fragment of the stone that was lying on the snow, and, regretting that we had no bottle to leave, and no materials with which to construct a cairn, took our departure at 1.45 from the lofty perch which, I fancy, is not likely to receive many subsequent visitors. Passing immediately below the second point before mentioned, so that our hands almost rested on it, and also several similar pinnacles, our work commenced. I never, before or since, was on so narrow an arête of rock, and really from step to step I was at a loss to imagine how we were to get on any further. We kept, as a rule, just below the edge, as before, on the side of the Glacier de l'Encula, along a series of ledges of the narrowest and most insecure character; but we were always sufficiently near the top to be able to look over the ridge, down the appalling precipices which overhang, first the Glacier Noir, and later, the Glacier du Vallon. Of course, every single step had to be taken with the greatest care, only one person moving in turn, and the rest holding on for dear life, Croz coming last to hold all up. In spite of the great difficulty of the route, the obstacles were only such as required more or less time to surmount, and although the slightest nervousness on the part of any one of us would have endangered

the whole party and delayed us indefinitely, in the absence of that drawback we got on pretty well. We were beginning to hope that the worst was over, when Almer suddenly stopped short, and looked about him uneasily. On our asking him what was the matter, he answered vaguely that things ahead looked bad, and that he was not sure that we could pass. Croz accordingly undid the rope, as also did Almer, and the two went forward a little, telling us to remain where we were. We could *not* see what was the nature of the difficulty, but we *could* see the countenances of the men, which sufficiently showed us that the hitch was serious. Under any other circumstances we should have been amused at Almer's endeavours to communicate his views to Croz in an amazing mixture of pantomime, bad German, and worse French. He evidently was trying to persuade Croz of something, which Croz was not inclined to agree to, and we soon made out that the point at issue was, whether we could get over this particular place, or whether we must return to the summit, and go down the way we had come. Croz was of the latter opinion, while Almer obstinately maintained that, bad as the place was, we *could* get over it, and proceeded to perform some manœuvres, which we could not clearly see, by way of showing the correctness of his opinion. Croz, however, was unconvinced, and came back to us, declaring plainly that we should have to return. We shouted to Almer, who was still below, but he evidently had not the slightest intention of returning, and in a few moments called upon us to come on, an injunction which we cheerfully obeyed, as, in our opinion, anything would be preferable to a retreat, and Croz, perforce, followed. A very few steps showed us the nature of the difficulty. The arête suddenly narrowed to a mere knife-edge of *rock*, while on one side a smooth wall, some 4000 feet in height, fell sheer towards the Glacier du Vallon, and on the other side, above the Glacier de l'Encula, the slope was not much less steep, and equally smooth. To pass below the ridge on either side was obviously quite impossible; to walk along the ridge, which was by no means level, was equally so, and the only way of getting over the difficulty, therefore, was to straddle it, an operation which the sharpness of the ridge, putting aside

all other considerations, would render the reverse of agreeable. However, there, perched in the middle of this fiendish place, sat Almer, with one leg over the Glacier du Vallon and the other over the Glacier de l'Encula, calm and unmoved, as if the position was quite an everyday one. He had not got the rope on, and as he began moving along the ridge, we shrieked at him to take care, to which he responded with a 'ja, gewiss!' and a chuckle of satisfaction. We threw him the end of the rope, and then cautiously moved, one at a time, towards him. I must confess that when I found myself actually astride on this dizzy height I felt more inclined to remain there for ever, contemplating the Glacier du Vallon, on to which I might have dropped a stone, than to make my way along it. The encouraging voice of Almer, however, urged me on, and I gradually worked myself along with my hands, until I was close up to him and Walker, with no damage save to the seat of my trousers. Whymper and Croz followed. From this point forwards we had, for half-an-hour, without exception the most perilous climbing I ever did. We crept along the cliffs, sometimes on one side of the ridge, sometimes on the other, frequently passing our arms over the summit, with our feet resting on rather less than nothing. Almer led with wonderful skill and courage, and gradually brought us over the worst portion of the arête[7] below which the climbing was bad enough, but not quite such nervous work as before, and we were able to get along rather quicker. At length, at 3.45, in two hours from the top, we were not far above the well-marked gap in the ridge, between the highest peak and the one marked on the French map 3980 mètres, or 13,058 feet. There we thankfully left the arête, and, turning to the right, struck straight down the ice-slope towards the bergschrund. Almost every step had to be cut, but, in spite of all he had done, Almer's vigour seemed unimpaired, and resolutely declining Croz's offers to come to the front, he hacked away, so that we descended steadily, if slowly. We could not see the bergschrund, and were, therefore, uncertain for what exact point to steer, for we knew that at only one place would it be possible to get over at all, where from below we had seen that the two edges nearly met—at all others the breadth and

height would be far too great for a jump. For some distance we kept straight down, but after a time bore rather to the left, cutting diagonally along the slope, which was inclined at an angle of 52°, and, below us, curled over so rapidly that we *could* see the glacier on to which we wished to descend, but *could not* see what lay between us and it. Passing over a patch of ice-covered rocks which projected very slightly from the general level of the slope, we were certain that we could not be far above the schrund, but did not quite see how we were to get down any further without knowing whether we *were* above a practicable point or not. It was suggested that one of the party should be let down with the rope, but, while we were discussing who should be the one, Almer cut a few steps more, and then, stooping down and craning over, gave a yell of exultation, and exclaimed that it was all right, and that we might jump over. By a marvellous bit of intuition, or good luck, he had led us to the only point where the two edges of the chasm so nearly met that we could get across. He cut down as low as possible, and then, from the last step, each man, in turn, sprang without difficulty on to the lower edge of the crevasse, and at 4.45 the problem of getting off the mountain was solved.

When Messrs. Mathews and Bonney made an attempt on the Ecrins in 1862[8] they determined the bergschrund to be 525 feet below the summit. We all thought this below the mark, and that the distance was nearer 700 feet. But however this may be, nothing can give a clearer idea of the magnitude of the difficulties we had overcome than the fact that we had taken no less than eight hours and a half, including halts to the amount of less than one hour, to get up and down this comparatively trifling distance. We all felt vastly relieved to find ourselves over our last serious difficulty, and the guides fully shared our satisfaction. Indeed, Croz now, for the first time, admitted that the Ecrins was really defunct. The Col des Ecrins was our next point, and towards this we hurried as fast as possible; but the snow was in a very different condition from what we had found in the morning, being very soft, so that we plunged in deep at every step; nevertheless we jumped, trotted, and walked at such

a pace, that at 5.25 we reached the point just above the Col, where eleven hours before we had deposited our baggage. Our thoughts had been for some time intent on the vessel full of snow which had been left to melt, and our disgust may be imagined, when we found the vessel upset, and void alike of snow or water, so that our parched palates would have to wait for some time longer for the much-needed moistening. We now had to descend by the Glacier de l'Encula and Glacier Blanc to the Val Louise, and hoped to reach Ville Vallouise, the *chef lieu* of the valley, about midnight, but our ability to accomplish this depended largely upon whether we could get well clear of the glaciers before dark. We knew that we should have hard work to do this; so, after only ten minutes' halt, we reluctantly shouldered our respective loads, and at 5.35 resumed our way over the level snow-fields of the Glacier de l'Encula. This is one of the most extensive glacier plateaux in the Alps, and the ridges of the Crête de l'Encula and Crête du Glacier Blanc, which surround it, are very fine. It is almost free from crevasses, but is very long; and, although the snow was in far better order than we had expected, it was 6.55 before we reached the point where the glacier abandons its easterly direction, and takes an extraordinary turn due south, at right angles to its former course, round the corner of the Crête de l'Encula, assuming at the same time the name of Glacier Blanc. From here the Ecrins stood up very well, and, turning round, we took what was destined to be our last near view of our vanquished foe. But I regret to say that, at the moment, our attention was more than equally divided between the mountain and the sound of falling water, which was audible close by. We made for a small patch of rocks that cropped out of the ice, and, to our infinite delight, found a tolerably clear stream running over them, with which we did our best to quench our thirst, and took the opportunity of washing down a mouthful of food. At 7.10 we were off again, and, picking our way through the crevasses, which were becoming numerous, were soon compelled to get off the glacier on its left bank, in order to avoid the séracs of the upper ice-fall, the natural result of the extraordinary turn which the glacier is obliged to make in order to reach the Val Louise.

Moraine, avalanche snow, and débris offered us an easy line of descent, which we followed at a great pace, I coming occasional croppers in my haste, until, at 7.30, we emerged on to the little open plain on which is situated the Hotel Tuckett, a very tolerable hole, where we had originally intended to pass the night before attacking the Ecrins. Fortunate was it, however, that we had varied our plans, for we found that the stream, which was considered one of the great advantages of the spot, had, in an erratic moment, taken a turn into the hole, filling it with water, and, of course, rendering it altogether uninhabitable.

From here, the natural course would still be to follow the left bank of the glacier, but no way has yet been found along the rocks on that side of the ice-fall, and it is necessary to cross to the right bank, and descend by the lower slopes of the Crête de l'Encula to the moraine of the Glacier Noir, which almost meets the lower end of the Glacier Blanc. The passage of the glacier is an easy operation, as, most opportunely, just at this point there is a level and quite uncrevassed plateau between the upper and lower ice-falls. Accordingly, at 7.45 we found ourselves on the opposite side, having enjoyed during the passage a perfect view of the superb upper ice-fall. A few minutes brought us, just as it was getting dusk, to the brow of the steep descent leading down to the level of the Glacier Noir. This, always troublesome and never particularly easy, in the rapidly-increasing darkness was simply detestable, especially to a person so shortsighted as myself. To this day I cannot understand how I got down the steep slopes of débris and stones, overgrown here and there with juniper, and varied by smooth faces of rock, without a serious fall. In the worst places Almer guided my feet into the proper steps, which I was quite unable to see myself, and Walker, like a trump, stuck to me, in spite of all my entreaties to him to go ahead. The sagacity with which Croz hit off the exact line of descent was marvellous, and, without his local knowledge, I don't think we could have got down till daylight. From a point about half-way down we got a gorgeous view up the Glacier Noir of the Pelvoux range, the Ailefroide, and Crête de la Bérarde, their summits tinged by the last rays of the sun, while the glacier and valleys below

were already enveloped in darkness. At 8.45 we landed on the moraine of the Glacier Noir, but it was by this time quite dark, and there was no chance of a moon to help us out, while we had no lantern nor light of any description; in fact we were just half-an-hour too late.

Our proper course would now have been to keep along the side of the moraine to its end, then cross the torrent from the Glacier Blanc, and descend the valley along the left side of the main stream, where we knew we should find a constantly improving track which would lead us in due course to Ailefroide and Ville Vallouise. But, for some reason, Croz objected to pass the torrent, and determined instead to cross the whole width of the moraine of the Glacier Noir, and descend by the right side of the valley where there is no path at all. The idea of traversing one of the most rugged and extensive moraines in the Alps in pitchy darkness in order to descend the pathless side of a savage and rarely-visited valley, struck me as simply monstrous, and, if we wished to reach Ville, perfectly suicidal. Croz, however, insisted that there was no other way, so we commenced our task by ascending the very lofty and steep side of the moraine, hoping for the best. The whole lower end of the Glacier Noir is covered with moraine from one side to the other, exactly like the Zmutt, Zinal, and other similarly offensive glaciers in the Swiss Alps, and from this circumstance it derives its name. Even by daylight the passage would be no easy task; what it was by night can be imagined. Ridge after ridge was passed, until Walker, myself, and Almer reached the top of the last one, and had only to descend along its side to *terra firma*. Whymper and Croz were already down, and we followed. The height was probably fifty or sixty feet, and the footing was horribly bad, while immense blocks of stone were lying on the slope in a most uncertain state of equilibrium. Almer and I were about half-way down, doing all in our power to avoid dislodging the stones, when, suddenly, the whole side of the moraine came down with a run, right upon us. I do not hesitate to say, that I never in my life was in such peril. The smaller stones swept along with such violence that they took me clean off my legs, just as a torrent might have done, and

carried me down, *nolens volens*, along with Almer, who was as powerless as myself. All we could do was to keep fast hold of each other, and avoid being thrown down. On all sides of us the huge blocks came down helter-skelter, dashing against each other, and creating a fiendish din, which added to the terrors of the moment. Every instant I expected to be knocked over and disabled, if not killed outright, and I have never been able to understand how we escaped. But, providentially, the missiles, which were clattering round us, spared us, and at last, when we approached the bottom of the slope, we managed to recover the use of our legs, and fled precipitately, till we were well out of reach of the still falling blocks. There we found Whymper and Croz, alarmed at the uproar behind them, the cause of which they could not see, but in happy ignorance that we were in the middle of it all. Walker had fortunately not begun to descend, and, seeing what was going on, wisely waited until the tumult had ceased, when he joined us without accident, the road having been thoroughly cleared for him. We were at last fairly in the valley, but there were no signs of vegetation, nothing on all sides but stones and sand. Although we could not see, we knew that we were in the middle of a flat plain, perfectly barren and desolate, which lies below the termination of the Glaciers Noir and Blanc, and bears the singular name of the Pré de Madame Carle. Walker and myself had long given up all hope of reaching Ville or even Ailefroide, and were accordingly devoting our energies to finding an eligible spot for a bivouac, for which the night promised to be favourable, as, although distant thunder was audible, and occasional flashes of summer lightning lit up the sky, the stars were shining brightly. The walking became more and more difficult at every step, and I was beginning to feel desperate, when a huge rock loomed through the darkness. I rushed towards it, and, having examined its capabilities, announced my intention of taking up my quarters there for the night. The great mass of rock was tilted up at so slight an angle with the ground that it would give but little actual shelter, but under its lee was a bed of soft white sand, which would be a most luxurious couch. On so fine a night a better place was not required, and Walker and

Almer resolved to stop with me. Whymper and Croz, however, preferred to push on, being confident of their ability to reach Ailefroide at least; so they magnanimously gave us the scanty remains of the provisions, wished us good night, and were soon lost to sight in the darkness. It was just 9.40 p.m., so we quickly made our arrangements for the night. We were not hungry, so made our supper off an opportune stick of chocolate, which Walker happened to have, and then turned in. As Almer had no coverings, we made him squeeze in under the rock, and then, rolling ourselves up in our plaids, we took up our position side by side, with our feet towards the rock, and the rope for our pillow. The sand was deliciously soft; it was by no means cold, and we were very soon asleep.[9]

NOTES TO CHAPTER IV

[1] The slopes seen in the immediate foreground on the right of Plate IV. form a part of the northern bank of the Bonnepierre Valley, where it enters the Etançons Glen.

[2] An account of Mr. Tuckett's first crossing of the Col des Ecrins in July 1862, with Croz and Perren, is to be found in the first volume of the *Alpine Journal* (1863), p. 168. It was on this journey that he found the *gîte* referred to elsewhere in the text, which has for some years now been replaced by a substantial stone refuge hut.

[3] Moore's description of the positions of the Ecrins summits, in spite of the imperfection of the map which he had at the time, is perfectly accurate. The lowest or west summit (13,058 feet) which is on the watershed, and conspicuous as a rock peak in views of the Col des Ecrins taken from the west, is known as the *Dôme de Neige des Ecrins* from its appearance from the east and north. It is clearly seen both in Plate V. and in the heading of this chapter. The central summit, or *Pic Lory*, which is also seen in these views, is simply the point where the eastern spur (on which lies the highest point) joins the north and south watershed. (See the descriptions of the two photographs just mentioned.)

[4] This is the point about a mile and a half due north from the Ecrins, and facing its eastern summit, from which Mr. Holmes's photograph (Plate V.) was taken. The Col des Ecrins still remains the only crossing known on the watershed between the Roche Faurio and the Ecrins.

[5] This point is now known as the *Montagne des Agneaux* (12,008 feet), and was first ascended by Mr. Coolidge in 1873.

[6] As to the route taken here, see the description to Plate V.

[7] It was no doubt in this part of the descent that the jump of Almer's occurred, which has been rendered immortal by Mr. Whymper's picture in his *Scrambles*. In reference to this picture it is interesting to know that the drawing was shown both to Moore and to Horace Walker by Whymper before it was published, and that they agreed that it fairly represented the place and the incident, while Almer appears to have pointed out the exact spot to his son when on the mountain some years later. It is hardly necessary to point out that, without a balloon, the actual details of the cliffs could not have been seen, and these Mr. Whymper had to fill in as truthfully as he could. In the engraving the party is shown in the order Almer, Croz, Whymper, Walker, Moore.

[8] For details of this attempt see Professor Bonney's *Outline Sketches in the High Alps of Dauphiné*, London, 1865 (a book containing a number of charming drawings, now only very occasionally to be purchased), p. 19.

[9] It is very interesting to compare Moore's account of the ascent of the Ecrins with Whymper's story of the same climb. Both were based upon journal notes made at the time. Moore's was in print before Whymper's book was published, but Whymper's account of the ascent of the Ecrins was published in the *Alpine Club Journal* in March 1866, and was therefore printed before Moore. It will be remembered that in the *Scrambles* several quotations from Moore's Journal are given. There is no disagreement—under the circumstances there could not very well be any—between the two accounts, but it is quite interesting to notice what particular different points have most impressed each of the two narrators.

The Ecrins has not, perhaps, been so often ascended as the great interest of the mountain could have led one to expect. It has, however, been ascended by a number of different routes. The line taken by Moore's party has been followed throughout in certain states of the snow, while at other times it has been found preferable to use one or other of the ridges (north or south) for the ascent. The mountain has also been climbed (first by Monsieur H. Duhamel in 1880) by the south face (the side opposite to that seen in the photograph) from the Col des Avalanches. In this case the climb is practically over rocks right to the top.

CHAPTER V

THE COL DE LA PILATTE

Sunday, 26th June.—I have rarely passed a more comfortable night, the sand was very soft, and the night warm, so that, at 3.10 a.m., when we finally woke, we were very loth to move. Almer, however, ever fresh and lively, jumped up at once, and, having collected a quantity of dry juniper wood, made a large fire, round which we seated ourselves, and examined our stores, to see what were the materials at hand for breakfast. These were not very extensive, the *pièce de résistance* being a hunch of bread; but Almer routed out from his bag a large lump of bacon fat, which, having been brought for the purpose of greasing the boots, was now destined for a nobler object. He forthwith proceeded to cut off large cubes of it, and munch them with great apparent satisfaction. We could not quite bring ourselves to this, but Walker was suddenly seized with a brilliant idea, and suggested that we should fry some. A number of thin slices were immediately cut, and placed on stones as close to the fire as possible, where they were thoroughly broiled, and

turned out most excellent. We quite finished the bread, and made the lump of fat look foolish, as we went on eating even after the bread was exhausted. The fire crackled merrily; it was a delicious morning; and altogether I never made a more agreeable al fresco breakfast. Straight in front of us was the great lower ice-fall of the Glacier Blanc, a most exquisite object of surpassing purity, and presenting a wonderful contrast to the dirty moraine-covered snout of its neighbour, the Glacier Noir.

At 4.0 a.m. we shouldered our plaids, and set off for Ville Vallouise, but determined to cross the torrents at once, and so get on to the proper side of the valley, There were several streams, but we contrived to get dry-footed over all of them but the last, which was wide and rapid. But over we must go; so, turning up our trousers, we went in and waded across. The water was cold, and the current rapid, but the stream came very little above our knees, and we were soon safely landed on the left bank, where our eyes were instantly greeted by the welcome path. Our boots were, of course, full of water, but we did not stop to empty them, as we should walk them dry before arriving at Ville. As we looked at the opposite bank of the torrent which we had just left, we congratulated ourselves on our superior wisdom in having stopped for the night where we did; but our congratulations were mingled with some anxiety about Whymper and Croz, as we could scarcely believe that they had been able to find a way in the dark over the waste of ruin that encumbered that side of the valley. Rocks upon rocks were piled together in the wildest confusion, completely blocking up the narrow tract of very steep ground that sloped down from the side of the mountains towards the torrent, which rushed furiously along over its uneven bed. I should be sorry to have to find a way along this savage ravine by daylight, much more in the dark, so that we were not surprised, after we had gone a short distance, to hear a voice hailing us, and on looking across saw our friends under a large stone, where they had evidently passed the night. They were just preparing to start, but could not possibly cross over to us, as the torrent had become so deep and rapid as to be quite unfordable, so we were obliged to keep apart for the present. The scenery of the Vallon d'Ailefroide, as

this arm of the Val Louise is called, is exceedingly fine, the tremendous cliffs of the Pelvoux on the right side being objects of extraordinary grandeur. The valley, although savage and barren, is far more agreeable to traverse than the generality of the Dauphiné valleys, as it is not only not steep, but the track is a very tolerable one, and by no means particularly stony. We took it very easy, and enjoyed the walk much, until we at last reached a little open plain, at the point where the Vallons de Sapenière and Ailefroide unite to form the Val Louise proper, crossed to the right bank of the torrent, and at 5.15 reached the filthy chalets of Ailefroide, where Whymper had arrived a few minutes earlier, after a very fast walk of the most rugged and painful character. He and Croz were naturally hungry, and not caring for milk, which was all the chalets could supply, very wisely started off for Ville, in order to have breakfast ready as soon as possible, leaving us to follow at our ease. An old fellow of the name of Sémiond appeared to be the dignitary of the place, and through him we got some tolerable milk. We informed him of our yesterday's exploit, which did not appear to interest him much, but he was profoundly sceptical as to the Ecrins being higher than the Pelvoux. He had lived all his life under the shadow of the latter mountain, in the firm conviction that it was the highest of the Dauphiné Alps, and now, in his old age, did not care to have his belief shaken, and a new, and to him unknown, peak raised to the supremacy. At 5.25 we left the chalets, having seen enough to convince us that, under almost any circumstances, our *gîte* would be far preferable to the foul accommodation afforded by them. Below Ailefroide is a good mule-path, which, however, we contrived to get out of once or twice with no worse result than being obliged on one occasion to cross a furious torrent by a single pine tree, thrown over at a considerable height above the stream, an operation which I preferred to perform straddling, and found almost as detrimental to my trousers as the arête yesterday. Throughout the scenery is charming, and the vegetation improves rapidly until we at last found ourselves walking through groves of walnut and cherry trees, the fruit on the latter not yet ripe. Just above Claux, where the valley leading by the low Col de l'Echauda to Monetier

falls in, we crossed again to the left bank of the stream, and, passing through the village, made tender inquiries for cherries, but were informed that there were not yet any, but that we should find them lower down. The view, looking up from about here, is very picturesque, the superb mass of the Pelvoux standing up well behind the foreground of luxuriant vegetation, itself a sufficiently rare spectacle in Dauphiné. In spite of the early hour of the morning, and of our being still in the shade, the walk onward was hot and dusty. We met numerous natives, most of whom, especially the females, were extremely garrulous. One toothless old hag, in particular, impressed upon us, in an almost unintelligible patois, the necessity of going to an inn at Ville, kept by a friend of hers. We were not sorry when we crossed for the last time to the right bank of the stream by a good bridge, leading into Ville Vallouise, and, turning down the bank for a few yards, walked into the little inn *chez Giraud* at 7.0 .a.m, just three hours from our *gîte*.

In the not very inviting *salle-à-manger* we found Whymper and Croz, who, having ordered breakfast for the party, had been indulging in a preliminary and much-needed repast on their own account. There was some delay before our breakfast arrived, and when it did begin to make its appearance, a huge soup-tureen of boiled milk was for a long time all we had to feast upon; but, at last, divers sorts of strange and unknown meats were brought in, on which we in vain endeavoured to make a good meal, as the only recognisable animal, a chicken, was utterly spoiled by having been cooked in garlic. However, what we could not eat ourselves we transferred to the guides, who made short work of everything. While breakfasting, the room gradually filled with natives, who took little notice of us, but got into conversation with Croz, who, from having been here before, was not quite a stranger. Our mountaineering gear was a great mystery to them, and Croz chaffed them unmercifully on the subject, assuring them, in answer to inquiries, that we carried the rope in order to harness the chamois after we had caught them, a fact which was considered remarkable, but was believed implicitly. When the room was nearly full, an old fellow bearing the stamp of frequent potations on his countenance, joined the

company. He was already half-seas over, and a very little more finished him, when he began singing a song, of which the burden was the triumphs over the English of the great Napoleon, under the title of the 'Petit Caporal.' It was evidently intended for our edification, as the performer every now and then stopped short, and, turning to us, said, with an air of mock politeness, irresistibly ludicrous—'Il ne faut pas vous fâcher, Messieurs.' Numerous letters had to be written, and afterwards Walker and I sallied out into the 'Place,' opposite the Church, where we found a congregation of the inhabitants, but not engaged in religious duties. A regular fair was going on, the principal articles on sale being nails and cherries. We invested largely in both of these, the former for our boots, the latter for our interiors, took a look at the church, the exterior of which is *adorned* with some horrible daubs, and were then glad to beat a retreat out of the scorching sun, and at the same time avoid the admiring populace, who, as we moved about, formed a circle round us. I scarcely know how we passed the morning, but it was dreary work. To remain in the *salle* was impossible, as the row that was going on was perfectly maddening, so we took up our position on a log of wood outside under the shade of the house, and congratulated ourselves that our stay in this horrible hole was to be so short.

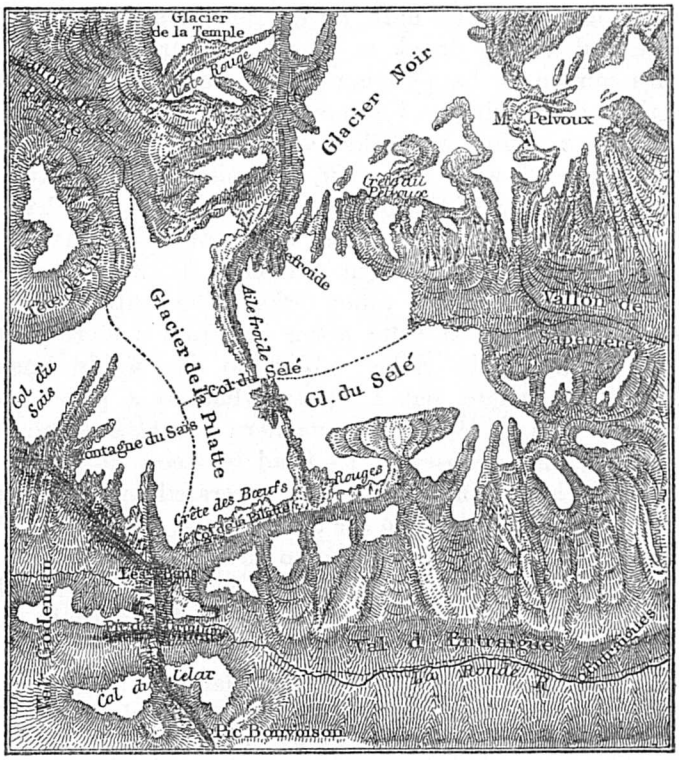
Our object now was to ascend the Val d'Entraigues, which joins the Val Louise at Ville, and from its head to make a new pass to La Bérarde, over the long ridge of the Crête des Bœufs Rouges, which forms the southern boundary of the great Glacier de la Pilatte. Although up this valley there is a tolerably well-known pass to the Val Godemar by the Col du Célar, we could not get the slightest information out of the natives. They could not even tell us how far up were the highest chalets of Entraigues; some said two, some three, and some five hours. This uncertainty was an excuse for an early start, so we ordered dinner to be ready at 1.0, intending to be off at 3.0 p.m. The dinner bore a strong resemblance to the breakfast; but had it been a sumptuous banquet we could not have done justice to it in the midst of such an uproar as was going on around us. The room was crammed to suffocation with people more than half

drunk, and the scene of riot and confusion was something indescribable. It made us quite ill, and as soon as we had wound up with some of the excellent liqueurs, which are the best things the house affords, we fled once more to the open air, and waited patiently till the guides were ready. There was some trouble in collecting the provisions, but at last everything was packed, and having, in consideration of the great heat, engaged the landlord's brother to take the things on his mule as far as the chalets, we called for the bill. When this was brought, we found ourselves called upon to pay about double as much as we should have been charged at Zermatt; so we cut it down one-third, and after a long argument with the landlord forced him to admit that he was well paid. He requested the pleasure of taking a farewell glass of 'Chartreuse' with us, and we parted excellent friends. But all this had taken up time, and it was 3.30 p.m. when we joyfully quitted Ville Vallouise after what will always live in my recollection as the most miserable Sunday morning I ever passed.

The path wound gradually round to the right into the Val d'Entraigues, and in a few minutes we were fairly out of the Val Louise. The former is considerably narrower and wilder than the Val Louise, but is none the less attractive on that account. On the contrary, we were charmed with the scenery, and found the walk most enjoyable after the weary hours of idleness we had been condemned to pass. The rocks on either side of the valley are very fine, and, for a wonder, their lower slopes are clothed with luxuriant pine-woods, and other trees. The torrent, of great size, rushes along at a tremendous pace, but is rarely visible, as its bed consists for the most part of a series of profound gorges, one of which, some way up the valley, presented a scene of savage grandeur, such as I have rarely seen surpassed. Altogether we were delighted, but, perhaps, in our joy at getting away from Ville, estimated the scenery at a higher rate than we should have at another time. We three pushed on at our own pace, leaving the guides and mule to follow at theirs, but during a halt we made to get some milk, they passed ahead of us. The old woman at these chalets was an extraordinary character; almost toothless, she chattered

away, notwithstanding, with a volubility that was quite alarming, especially as her remarks were totally unintelligible. Our demand for milk was answered by a flow of verbiage, which we endeavoured to stop by paying beforehand the supposed value of the milk, but the sight of the money only made her worse, and she talked, grimaced, and gesticulated until we were almost in despair. The milk, rather sour, was however at last brought, and, having drunk it, we retired, pursued by the old woman's tongue, in happy ignorance of what she had been so earnestly endeavouring to impress upon us. Thenceforward we took it rather easily, as Walker was not very well, the milk having disagreed with him, but, in spite of all delays, we reached the chalets of Entraigues at 5.55 p.m., in less than two hours' actual walking from Ville Vallouise. The chalets are pleasantly situated on a slight eminence in the centre of a little plain, just where the valley forks. The southern branch, called the Combe de la Selle, opens out from a mere cleft in the side of the main valley, which no one would imagine could lead anywhere, but I believe there is a pass in this direction to Champoléon. The northern branch is much more considerable, and is closed at its head by steep cliffs and two extensive glaciers. The glaciers are separated by a long spur, running down from the fine Pic des Opillons. To the south of this summit lies the direct route to the Val Godemar by the Col du Célar, a pass exceeding 10,000 feet in height; and to the north of it a still higher pass might undoubtedly be made into the same valley, but it would be a rather more circuitous route, as the descent would be into the lateral valley, through which lies the way from La Bérarde by the Col du Says. The ridge, forming the left side of the Val d'Entraigues, over which we hoped to pass, looked extremely unpromising, being very lofty and precipitous, but we could form no conclusion as to our prospects of success, as it sends down numerous long spurs, forming a series of ravines, and we could not see what lay between them, whether glaciers, or couloirs, or impracticable rocks. We knew that we must cross as far west as possible, as the Crête des Bœufs Rouges forms the boundary not only of the Glacier de la Pilatte but also of the Glacier du Sélé, and by

reaching a point on the ridge too far east, we should find ourselves above the latter glacier, just where we did not wish to be. Before determining our exact line of march it would, therefore, be necessary in the morning to ascend the valley nearly as far as the foot of the Col du Célar, and we trusted



GLACIER AND COL DE LA PILATTE

that from there we should discover some means of access to the ridge.

Nothing could have exceeded the hospitality with which we were received at the chalets, which were models of cleanliness, and the two women in charge seemed as if they could not do enough to make us comfortable and anticipate our wishes.

They were both middle-aged, and bore the marks of toil on their faces, but I have rarely seen more prepossessing countenances; honesty and good-temper were stamped on them. All sorts of chalet luxuries were set before us—milk, cream, séracs, curds and whey, and most excellent cheese. While we were discussing these, they cooked us a huge omelette, and then lent us every facility for brewing some tea. At about 8.15 p.m., we retired to a large clean barn close by, where they had arranged an immense quantity of perfectly new straw for our couches. Nothing could have been more luxurious, and, with our plaids, we were soon packed side-by-side, like birds in a nest. The guides were equally comfortable, and the united party were very soon asleep.

Monday, 27th June.—I never passed a more comfortable night, and felt anything but amiably disposed towards the intruders, when, at 2.15 a.m., there was an irruption of people into our barn, who summarily put an end to our repose. Through the gloom I made out that one of the objectionable individuals was a man, who shortly resolved himself into Monsieur Jean Reynaud of La Bessé, a friend of Whymper, whose reported engagement of 'four-and-twenty of the most celebrated guides of the country' had so alarmed us at La Grave. He had come up yesterday afternoon to Ville Vallouise to meet us in accordance with Whymper's invitation, and, finding that we had already started, pursued us, arriving at Entraigues very late at night. He had heard at Ville of our ascent of the Ecrins, and congratulated us on the same, saying nothing to lead us to suppose that he had ever intended to accompany us; so we said nothing about our conversation with the 'podgy man' at La Grave, and that mystery accordingly remains unsolved. Our indefatigable hostesses had prepared us some excellent coffee for breakfast; having done justice to which, we bade them farewell, after having with the greatest possible difficulty forced them to accept the smallest trifle, and at 3.35 a.m. started on our way.

The morning, though fair, was by no means perfect; there were a few clouds in the sky, the general appearance of which presaged a change, and there was a rainy feeling in the wind,

which made us glad to reflect that this would be the last occasion for several days on which we should be absolutely dependent on fine weather. We were accompanied for a short distance by a man who had come up from Ville with M. Renaud, and whom he utilised as a beast of burden so long as his way lay with ours. Entraigues is situated in the centre of a small plain, just below the junction of the Combe de la Selle with the main valley, which latter above the junction contracts to a mere gorge. The torrent has brought down vast quantities of stones and débris, which lie scattered over the plain; and over this rough ground we had first to pick our way, following a very faint track along the left bank of the stream. At the mouth of the gorge the ascent became steep, but, so soon as we were fairly within it, the track kept for a long time almost on a level. The chalets of Entraigues are themselves high, and above them the vegetation is very scanty, the valley, which is nothing more than a glen, presenting a scene of the dreariest and most unattractive character, so that we had no temptation to waste time on the road, and, pushing rapidly on, were soon engaged in a toilsome and disagreeable scramble along the rough and stony slopes on the left side of the valley. The track had by this time died away, but our route was obvious. Near its head the valley takes an abrupt turn from west to north-west, and we had to get round the shoulder of the hill in the angle, beyond which we hoped to be able to form some idea of the practicability of our proposed pass. Having traversed the steep side of the hill, we found ourselves looking into the last bit of level ground at the head of the valley, and, as we expected, in full view of the surrounding peaks and glaciers. In the middle of a dreary flat, through which shallow streams meandered promiscuously, was an enormous old moraine, evidently a relic of the good old days before the glaciers had shrunk to their present comparatively attenuated proportions; and on the top of this, at 4.55, we took up our position, turning our faces almost due north.

Westward towered the exceedingly lofty and rugged ridge, which, running from the Pic de Bonvoisin on the south to Les Bans on the north through the Pic des Opillons, forms the barrier between the Val d'Entraigues and the Val Godemar.

From between the Pic de Bonvoisin and the Pic des Opillons a very steep and shattered glacier falls towards the valley, but does not reach it, as it terminates above steep cliffs, succeeded by long slopes of débris. Over the head of this glacier lies the Col du Célar, which the good people at Entraigues informed us was passable for sheep and goats. Looking at the place, we certainly found it hard to believe this, as the glacier itself would be difficult enough for even men to pass, and the rocks right and left, by which, I believe, the ascent is made, looked scarcely more promising. The ridge between the Pic des Opillons and Les Bans is loftier but certainly not more inaccessible than that of the Col du Célar. From it a steep snow-slope falls to a glacier of a similar character to its neighbour, terminating in precisely the same manner. The Pic de Bonvoisin and the Pic des Opillons appear to be of the same elevation, 11,503 feet, but Les Bans is a far more considerable summit, rising to the height of 11,979 feet, and presents a very imposing appearance on this side, where it shows as a long rugged crest, almost free from snow. From this, the long range of the Crête des Bœufs Rouges runs east, and forms the southern boundary of the Glaciers de la Pilatte and du Sélé and the north side of the Val d'Entraigues. Along the Crête rise several considerable peaks, of which the western, a very striking, sharp-pointed summit, is the highest, and seemed little, if at all, inferior to Les Bans, to which it is contiguous.[1] This cannot possibly be the summit to which on the French map the height of only 11,332 feet is given, as so material a difference between it and Les Bans would have certainly been perceptible from our position, from which both were almost exactly equidistant. With regard to the possibility of passing over the Crête, we could make out less than we had hoped, partly in consequence of an envious mist having perched itself just in this direction, and still more owing to the character of the ground. On the map a very short but broad strip of glacier is represented as lying along the face of the ridge; but this has no foundation in fact. The real state of the case is, that there are a number of steep secondary glaciers, commencing some distance below the top of the ridge, separated from each other by long spurs of rock, and terminating at a considerable

height above the valley, in very narrow and precipitous ravines. Along the whole length of the ridge we could not make out one single point which *looked* at all like a pass, but, after much discussion, discovered two gaps, by one of which we agreed the attempt must be made, if at all. The first of these lay between Les Bans and the highest point of the Crête, and, we imagined, must be the top of a couloir, rising out of the head of a glacier, whose tail was just visible, projecting over the rocks; but we could not be certain, as the wall at the head of the glacier was masked by a rocky spur coming down in front of it. The second gap was further east, on the other side of the highest point of the Crête, and this also we could not clearly see how to approach, no glacier being visible above the lower wall of rocks, which must evidently be the first step in the ascent. We fancied the first gap, but, as it was not desirable to make a mistake, Almer started off to the other side of the valley, towards the foot of the Col du Célar, to try and get a view up the ravine, glacier, and couloir, which led up to it. We saw him making his way along the steep slopes of débris below the two glaciers (which might conveniently be called Glacier du Célar and Glacier des Opillons), but finally lost sight of him. Some time passed, and he did not re-appear, so we concluded that all was right, and, at 5.30, followed in the same direction, but kept to our own side of the valley.

Passing along the grass-grown top of the moraine, we shortly reached the foot of a long slope of snow, the remains of the winter avalanches, lying along the base of the rocks in which we wished to find an accessible point. This slope offered a most convenient mode of approach, so we turned straight up it, keeping always near the foot of the rocks, over which a series of fine cascades fell, caused by the melting snows of the glacier above. We now caught sight of Almer again, at a great height above us, crossing the upper part of this slope, towards a recess in the rocks on our right, where we accordingly guessed he had found an assailable point. The snow was very hard, and the inclination considerable, so that, mounting without steps being cut, our progress was toilsome and slow. Croz and myself were in front, and, talking as we went on various topics, never for an instant

supposed but that the other three were at our heels, until, chancing to look round to see how high we had risen, to our surprise we found that for some reason they had dropped behind, and were only at the foot of the slope, which we were half way up. There was evidently nothing the matter, as they were coming up steadily in our steps, so we did not think it necessary to stop, and went on our way towards where Almer was waiting for us. When we were two-thirds of the way up, we passed underneath the projecting snout of a glacier which terminated abruptly in ice-cliffs, just above our heads, and I should think must occasionally send a few blocks over down to our slope, which in that case would be rather warm quarters. As it was, an occasional stone came whizzing past, of whose approach we were always warned by a shriek from Almer, which we in our turn passed to our friends below. As we neared Almer's position, the slope became steeper and harder, so that it was impossible to advance without using the axe, seeing which he began cutting steps down to meet us, while Croz cut up, until we finally joined him, when we bore to the right, and, at 6.50, got on to the rocks, where we waited for the others, who were still a long way below. Almer reported that from below he had been able to get a view of the glacier above, and also of a couloir rising from its head, which he thought we should be able to ascend. He had not, however, seen quite to the top, and was rather apprehensive that there we might find the snow so thin over the rocks that they *might* not be passable, so warned us not to be too sanguine. I was not much afraid of a failure from this cause, but was seriously uneasy at the appearance of the weather; clouds were gradually obscuring the sky, and thick mists were creeping up the valley at our feet, and were making strenuous efforts to reach our position. The only point in our favour was, that a strong north wind was blowing in the upper regions and struggling for the mastery with the objectionable *Vent du Sud*, and we trusted that the contest, if it was not at once decided in favour of the north, might be prolonged sufficiently to allow us to find our way down on to the Glacier de la Pilatte. At 7.15 the rest of the party arrived, and we immediately turned our attention to the provisions, which I had most meritoriously refrained from

attacking, notwithstanding the pangs of hunger which had for some time been tormenting me. Walker and I varied the entertainment by our usual pastime of stone-throwing, and, for the first and only time while we were together, I succeeded in decisively beating him; a victory, however, which must be ascribed, not to my superior skill, but to the fact that he was very much out of sorts from the bad living in which we had been indulging.

At 7.50 we were off again, and commenced climbing the rocks above us, which, though steep, gave good hold for hands and feet, and could not consequently be considered difficult. As we climbed, we found considerable patches of snow, one of which we at last selected as the most convenient line of ascent, and, pounding laboriously up it, gradually emerged from the ravine, and found ourselves at 8.25 on a slope of snow, stretching down to the right side of the glacier, beneath whose foot we had passed. The glacier was very small, exceedingly steep, and much broken up, enclosed on three sides by the superb naked cliffs of Les Bans and the Bœufs Rouges, which rose from it in a tremendous wall, along which we could see no gap nor accessible point. We began to fear that Almer had made a mistake in the direction of his couloir, but he was quite confident, and assured us that it was hidden round a corner, and that so soon as we were in the centre of the glacier we should get a view of it. The rope was accordingly put on, we carefully descended the slope, dropped over a small bergschrund, and, under Croz's guidance, committed ourselves to the ice. Making for the middle of the glacier, we at last unmasked on the extreme left, at its north-western angle, close under the peak of Les Bans, an exceedingly lofty, steep, and narrow couloir, stretching up to the ridge, and defended at its base by a formidable bergschrund, running completely from one side to the other. A more unprepossessing place I never set eyes on, and we all agreed that the work before us was likely to prove rather exciting, possibly more so than would be quite agreeable. But, before getting near the foot of the couloir, we had something to do in threading a way up and through the huge chasms into which the glacier was broken. Croz was here thoroughly in his element, and led the

THE GLACIER DE LA PILATTE.

way with great skill and determination, passing one obstacle after another, and bearing gradually to the left towards the enemy. At every step we took, it became more apparent that nature had never intended any one to pass this way, and had accordingly taken more than usual pains to render the approach to the couloir difficult and dangerous. Below the highest bergschrund were a series of smaller ones, arranged systematically one above the other, stretching completely across a very steep slope, so that they could not be turned, but must each in succession be attacked *en face*. Fortunately, at this early period of the season, and with so much snow, the difficulty was less considerable than it would have been under other circumstances, and, exercising every precaution, we finally passed the last of the outer lines of defence, and had nothing but a short steep slope between us and the final 'schrund,' above which the couloir rose more unfriendly than ever, as we approached it nearer. I had been sorely puzzled in my mind how we were going to get across this chasm, as from below it appeared to have a uniform width of about ten feet, the upper edge, as usual, much higher than the lower, and no visible bridge at any point. On getting up to it, however, we found that on the extreme right it had been choked by a considerable mass of snow, the small remains of which, at one point, formed a narrow, rotten, and most insecure bridge, over which Croz cautiously passed, and made himself firm in the soft snow above. Walker, Whymper, Mons. Renaud, myself, and Almer, then followed, as if we were treading on eggs, and all got safely over, much to our relief, as there really appeared no small chance of the bridge going to grief before we were all across, which would have been awkward for those on the wrong side.

It was just 9.30 when we fairly took to this extraordinary gully, which, above the bergschrund, was certainly not more than twelve feet wide, and gradually narrowed in its upward course. For the first few steps we trod in a sufficiency of soft snow in good condition, but, to our dismay, this soon sensibly diminished both in quantity and quality, until at last there was nothing but the old, disgusting, powdery snow resting on hard ice. The axe accordingly came into play; but, if steps were cut

of the ordinary size, we should never get to the top till night, so Croz just hacked out sufficient space for the feet to cling to, and worked away as fast as possible, cautioning us emphatically to look out, and to hold on well with our axes while each step was being cut. Another argument in favour of rapid progress arose from the palpable danger in which we were. The centre of the couloir was occupied by a deeply-scored trough, evidently a channel for stones and avalanches, while the space on either side was so narrow that in case of a large fall we could scarcely expect to escape unharmed. Looking up to see what was likely to come down, we discovered at the very head of the couloir a perpendicular or slightly overhanging wall of névé, some thirty feet in height, and, lower down, projecting over the rocks on our left, an enormous mass of icicles, on which the sun was playing, and, of course, momentarily loosening their tenure to the rocks. At the moment we were exactly in the line which they must follow, if they fell, as they evidently would before long, so we lost no time in crossing the stone channel to the other side, where the great mass was scarcely likely to come, and we might probably ward off any stray fragments. I received a lively hint as to the effect of a *large* mass of ice coming suddenly down on one's head, by the effect of a blow from a comparatively small piece, which Croz hewed out from one of the steps. Being so far down in the line, it had time to gain momentum before it struck me, which it did on the head with such violence that for a few moments I felt quite sick and stupid. The incident will give a very good idea of the steepness of the slope on which we were. I had too much to think of to measure it with a clinometer, but it was certainly steeper than any part of the couloir leading to the Col des Ecrins, the greatest inclination of which was 54°. At one point a little water trickled over the rocks, which the two front men managed to get a suck at, but those behind were out of reach, and the footing was too precarious for more than a minute's halt, not to mention occasional volleys of small stones which shot by us, and might be the precursors of large ones. I don't think that I ever experienced a greater feeling of insecurity than during the whole of this ascent, which was unavoidably

long. What with the extreme steepness of the slope, and the necessary vagueness of the steps, which were made additionally unsafe by the powdery snow which filled them up as soon as they were cut, I felt that a slip was a by no means unlikely contingency, and was glad enough upon occasions to find Almer's hand behind, giving me a friendly push whenever a particularly long stride had to be made. When we were nearing the top, our attention was attracted by a tremendous uproar behind us, and, looking round, we were just in time to see a prodigious avalanche falling over the cliffs of the Pic de Bonvoisin, on the other side of the valley. It was at least a quarter of a mile in length, and many minutes elapsed before the last echoes of its fall died away. We were now so near the great snow-wall that it was time to begin to circumvent it; so, crossing the couloir again, we clambered up the rocks on that side in order to get out of it, hoping to be able from them to get on to the main ridge to the left of the wall, which itself was quite impassable. As Almer had expected, the snow was here very thin over the rocks, and what little there was, was converted into ice, so that the climbing was most difficult and perilous, and we had no small trouble to get on at all. However, we managed to scramble up, and found ourselves overlooking a gully running parallel, and of a similar character, to the one we had been ascending, but free from snow and ice, and much more precipitous. On our side it was quite impossible to get on to the main ridge, as an impracticable rock rose above our heads, and it was, therefore, necessary to step across this second couloir. I never made a nastier step; the stride was exceedingly long, there was nothing in particular to stand on, and nothing at all but a smooth face of rock to hold on by, so that we had literally to trust to the natural adhesiveness of our hands. Fortunately, there was sufficient rope to allow the man in front to cross and get on to the main ridge, and make himself fast before his successor followed, so we attacked the difficulty in turn. I got over somehow, but did not like it at all; lifted myself on to the ridge, Almer followed, and at 10.45 a.m. the Col was gained.

During our ascent of the couloir, the weather, though

doubtful, had not been unfavourable, but, just as we got on to the ridge, a cloud swooped down, and enveloped us in its dense folds and at the same moment it began to snow violently. Luckily Croz, who was first on the top, had been able to satisfy himself that we *were* above the Glacier de la Pilatte, and got a glimpse of what lay between us and it; but the state of the atmosphere was nevertheless sufficiently disappointing, as we were unable to fix with accuracy the exact position of our gap with reference to the peak of Les Bans, and the highest point of the Bœufs Rouges, or to determine its height. From the Brèche de la Meije, we had seen clearly that we were then considerably lower than any point on the ridge south of the Glacier de la Pilatte, and, taking this into consideration, together with the apparent height of our gap, seen from the valley below, we estimated the height of the Col, which we proposed to call Col de la Pilatte, at about 11,500 feet. It is certainly not much below this, and is, therefore, probably the highest pass yet effected in the Dauphiné Alps.

It was no less provoking to have missed the view of the Ecrins and Ailefroide, which we had expected to be particularly fine. But there was no help for it, and no prospect of immediate improvement; so, without halting for a minute, we commenced the descent in the same order as before. All we could see was a steep ice-wall, stretching downwards from our feet, the actual ridge not being more than a couple of feet wide. What was the length of the wall, or what lay below it, we could not discover, but had a shrewd suspicion that we should anyhow find a considerable bergschrund. Croz steered to the left, and began cutting steps diagonally downwards. The snow was in a much worse condition than it had been in the couloir; there was more of it, but it was so exceedingly soft, that our feet pressed through it to the hard ice, as though it had been water, and we were very rarely able to trust to it without cutting a step. We should have been better pleased had there been no snow at all, as the whole slope, the angle of which was about 50°, was in just the proper condition for an avalanche. I never saw Almer so nervous, and with reason; for, as he himself said, while he implored us not to move from one step into another, before we

felt that one foot at least was secure, this was just one of those places where no amount of skill on the part of Croz or himself could entirely prevent the chance of a serious accident. It was a wonder how we did manage to stick to some of the steps, the objectionable character of which was increased from their being cut along the side of the slope, a position in which it is always more difficult to get from one to the other than when they are cut straight up or down. As we got lower down there was more snow, which, though softer than ever, was so steep that we could tread tolerably secure steps in it, by help of which we worked down, until we found ourselves brought up short on the upper edge of the expected bergschrund. Croz had hoped to hit this at a point where it was partially choked, but he was disappointed, as the chasm yawned below us, entirely unbridged. A glance right and left showed that there was no more assailable point within reach, so Croz gave out the unwelcome intelligence that if we wished to get over we must jump and take our chance. The obstacle appeared to be about ten feet wide, of uncomfortable depth, and the drop from the upper to the lower edge about fifteen feet. From the lower edge the glacier sloped away, only less steep than the wall on which we were, of which it was a continuation, but cut off by this sudden break. There was, however, so much soft snow that we should fall easy, and the only difficulty, therefore, was, to take a sufficiently fair spring to clear the chasm; for good as I believed my rope to be, I should have been sorry to see any one suspended by it, with a sudden jerk, over such a gulf as that we had beneath us. Walker was untied, so as to give rope enough to Croz, who, then, boldly sprung over, and landed heavily on the lower edge in the snow, where he stood to receive the rest of the party. Walker followed, and then Whymper, leaving Mons. Renaud, myself, and Almer above. Mons. Renaud advanced to the edge, looked, hesitated, drew back, and finally declared that he could not jump it; he felt perfectly convinced that he should be unable to clear the distance, and should jump in instead of over. We encouraged him, but without effect, and at last proposed to lower him down, when the others would hook hold of his legs somehow and pull him across. Almer and I, there-

fore, made our footing as secure as possible, anchored ourselves with our axes, and made all ready to lower our friend, but his courage failed him at the last moment, and he refused to go. We were now obliged to use stronger arguments, as it was snowing fast, and time was passing, so we pointed out that, if we wished to return ever so much, we could not get the others back across the 'schrund,' and that, in point of fact, there was no chance,—over he *must* go. Again did he advance to the edge, again draw back, but finally, with a despairing groan, leaped, and just landed clear of the chasm, but, instead of letting his rope hang loose, he held it in one hand, and thereby nearly pulled me over, head foremost. Then came my turn, and I must confess that, when I stood in the last step from which I had to spring, I did not like the look of the place at all, and, in fact, felt undeniably nervous. But I had not been one of the least backward in objurgating Mons. Renaud, so felt constrained to manifest no hesitation myself, whatever might be my private feelings. I, therefore, threw over my axe and spectacles, gathered myself up, and took the leap. The sensation was most peculiar. I had not the faintest idea whether I should or should not clear the chasm, but the doubt was soon solved by my landing heavily on the further side, rather to the right of the rest of the party. The heavy load on my back sent me forwards on my face, and I shot down the slope with tremendous velocity, head foremost, until I was suddenly stopped by the tightening round my waist of the rope, the other end of which was held by Almer above. My first impression was, that half my ribs were crushed in; as it was, my wind was so completely bagged by the severity of the jerk that I could not speak, but laughed hysterically, until nature's bellows had replenished my unlucky carcase. The incident was so far satisfactory that it showed the enormous strength of the rope, and also how severe a shock a man like Almer, standing in a most insecure position, can bear unmoved, when he is prepared for it. My weight, unloaded, is ten and a half stone, and the strain on the rope was certainly nearly as great as though I *had* jumped into the crevasse. Almer now followed us over, and at 11.35 we were all together without accident below the 'schrund,' which, with

the wall above it, was as ugly-looking a place as I would wish to see.

We now floundered down the slope of soft snow, without taking much care, as we imagined that henceforward it was all plain sailing, but were abruptly checked in our pace by coming upon a huge crevasse, of great length and breadth, but covered over in places. Several attempts were made to cross at one of these points, but without success, as the breadth was too great, and the snow unsubstantial in the extreme, and a long detour was necessary before we were able to get over near its eastern extremity. This proved to be the beginning of a new series of troubles, as the chasms became more and more numerous and complicated, until the slope which we had imagined would be so easy, resolved itself into a wall of gigantic séracs, the passage of which tasked our energies to the utmost. The difficulty of the position was increased by our still being enveloped in a mist so thick that we could not see a distance of twenty feet below us and were in a happy state of ignorance as to whether we were steering properly, or were only plunging deeper into the mire. Nothing, however, could exceed the energy and skill with which Croz threaded his way through the labyrinth which surrounded us. He never once had to retrace his steps, but, cutting along the sides of some crevasses and underneath others, he steadily gained ground. In spite of the generally deep snow, a good deal of step-cutting was necessary here and there, and we had nearly an hour of most exciting work before the inclination of the glacier diminished, and at 12.30 p.m., for the first time since leaving the Col, we stood at ease upon a flat plain of snow. But how long would it last? A fog on an unknown glacier always suggests to my desponding mind the probability of marching round and round in a circle, and finally having to pass the night in a crevasse, so that I, personally, was particularly relieved when, just as we emerged from the séracs, the mist suddenly lifted sufficiently to let us see a long way over the glacier in front, which displayed itself to our admiring eyes perfectly level and uncrevassed.

The Glacier de la Pilatte is divided at its head into three great bays; one, between the Tête de Cheret and the Montagne

du Says, over which goes the Col du Says; the second between the Montagne du Says and Les Bans; and the third, which we had just descended, east of Les Bans. The ridge, forming the right bank of this latter, runs north from the Crête des Bœufs Rouges, towards the Ailefroide, and over its lowest point goes the Col du Sélé to Ville Vallouise. In spite of the improvement in the weather, the Ailefroide and other high peaks remained invisible; so, having no temptation to lose time, we pushed on rapidly over the level snow-fields, gradually making for the left bank of the glacier. The snow was at first both deep and soft, and we all sunk in a good deal, especially poor Mons. Renaud, who had several times almost to be dug out. He was exceedingly tired, and no wonder, as he was utterly out of condition, and had not had much sleep before starting; nevertheless, his cheerfulness and good temper had never varied, and, except above the bergschrund, he had throughout been a most agreeable companion. Fortunately the snow improved as we went on, and we made such good progress that at 1.0 p.m. we got on to a large patch of rocks on the left bank of the glacier, and with one consent, called a halt. Mons. Renaud inquired whether we were going to light a fire, though where he thought the material was to come from I don't know, and, finding that we were not, he announced his intention of going on to La Bérarde so as to change his clothes; so Croz, having given him minute instructions as to the route, and particularly told him that he must get off the glacier on the *right* bank, he started off, while we turned our attention to feeding. There was a cold wind, which swept over our halting-place, so, having satisfied the pangs of hunger, we were glad to move on, and at 1.30 started off again. Just at this point there was a considerable fall in the glacier, which was consequently too much crevassed to be traversed with comfort, so we kept to the left bank, descending rapidly over moraine and steep slopes of débris, varied by long patches of snow, on which we got an occasional glissade, which was most generally brought to an end by our suddenly plunging up to our middles between two rocks, whose warmth had weakened the snow above. At the earliest opportunity we took to the glacier again, lower down, where it was perfectly smooth and level, the

ice not even presenting the hummocky appearance usual in such positions, so that nothing could exceed the ease with which we got along. We traversed it to its extreme end, where it curled over in a steepish bank of ice, down which we cut a way, and at 2.10 got off the last glacier we were to tread in Dauphiné on to the *gazon*, on the right bank of the torrent.

The *gazon* was, as usual, represented by a perfect waste of stones of all shapes and sizes, which appeared to extend an unpleasantly-long distance in front, so we prepared ourselves for another feet-punishing and temper-trying walk. As we were stumbling along, we were astonished to see Mons. Renaud on the opposite bank of the torrent, he having, after all, quitted the glacier on the wrong side. This was awkward, not only on account of the roughness of the ground, but also because there was no bridge across till some way below La Bérarde, the only facility for crossing above that place being the remains of an avalanche, which Rodier had told us was still firm enough to traverse, but which Mons. Renaud, not being aware of, might very easily miss. However, when we came to it, some way lower down, Whymper remained behind to direct his friend's attention to it. Nothing occurred to disturb the monotony of our walk except the successive passages of the lateral torrents from the Glaciers de la Côte Rouge, de la Tempe, and du Vallon, beneath which our route lay, which were accomplished without much trouble. The Vallon de la Pilatte is scenically far less interesting than the opposite Vallon des Etançons, but, by way of compensation, is also a degree less unpleasant to traverse—the stones, though bad enough, not being quite so rough. But we had, nevertheless, had quite enough of it by the time La Berarde appeared in sight, and were delighted when at 3.55 p.m. we once more found ourselves at Rodier's door.

Our object was, therefore, accomplished, but I don't think the Col de la Pilatte is likely to supersede the Col du Sélé as a direct route between La Bérarde and Ville Vallouise. It is considerably longer in point of time, and far more difficult, but is certainly more exciting, and is therefore, perhaps, more interesting. It should not be attempted late in the season, as with little or no snow the couloir on one side and the ice-wall on the

other would be very troublesome, while the bergschrunds on both might be found insuperable obstacles. The pass would, I think, be found more difficult taken from La Bérarde, and the way down by no means easily discovered. Personally, I should be very sorry, indeed, to have to descend the upper part of the couloir by which we mounted.

We had all along intended, should time permit, to push on at once to Venos, below St. Christophe, where we understood that there was a tolerable inn; so, having drunk some milk, and collected all our belongings, we bade farewell to the Rodiers, and at 4.40 Walker and I started, Whymper, Mons. Renaud, and the guides following shortly. The weather looked threatening, and we were apprehensive of a wet walk, but, although there was an occasional slight shower, there was nothing to hurt us, so we were so far fortunate. A tolerable path along the right bank of the stream led down the valley of the Venéon, with which we were rather disappointed, though undoubtedly a fine valley; but it is a mere gorge in the mountains, without any variety of scenery. Its flanks are throughout very lofty and steep, scantily clothed with vegetation, so that after a time the long continuance of desolation becomes monotonous. Passing the wretched and half-ruined hamlet of Les Etages, from which we ought to have got a superb view of the Ecrins, the path descended gently, until we reached the point at the entrance of the Vallon de la Muande, where the main valley takes an abrupt turn from west to north-west. From here the path became much rougher, and, which was more irritating, began a steady ascent, which soon raised us to an enormous height above the stream, and continued without intermission as far as St. Christophe. We got fine glimpses of unknown glaciers and peaks up the Vallon de la Muande and the Combe des Arias, but our powers of enjoying scenery were considerably weakened by a rather violent and very cold wind which blew straight in our faces, so that we could with difficulty keep our eyes open. At 6.55 we reached St. Christophe, the chief place of the valley, where we found Almer and Croz who had passed us some time before. Croz remained to wait for Whymper, while Almer went on with us to secure beds and supper at Venos. Below St.

Christophe we came upon a grand scene, where a bridge is thrown over the torrent as it leaps from the mouth of the Vallon de la Selle. The torrent and bridge are both appropriately called 'Torrent and Pont du Diable,' as the bridge is thrown over a frightful abyss, and the stream issues from a gorge, a mere fissure in the rocks, nearly as contracted and forbidding as the celebrated one of Pfeffers. We now began to go down in earnest, and a steep but most welcome descent soon brought us to the bed of the valley, on a level with the stream upon which we had been so long looking. The scenery became more and more wild, until we gradually entered a gorge of most savage grandeur. Rocks were piled upon rocks in the wildest confusion, as if a whole mountain had been shattered by some convulsion, while the stream rushed furiously along in the midst of the chaos with a sullen roar, with difficulty overcoming the obstacles in its way. We were in the centre of this wonderful defile, and it was getting dusk, when the path suddenly appeared to come to an abrupt termination, and it was some time before we discovered that it made a sharp turn between two huge rocks, and crossed to the left bank of the stream by a natural bridge, formed by some immense masses of rock which have fallen together across it. Thenceforward the path became rougher than ever, and some care was really necessary in the obscure light to avoid a plunge into the furious stream alongside of us, so that, in spite of the amazing grandeur of the scene, the lights of Venos, glimmering in the distance, were a welcome sight. It was a long time before we seemed to get any nearer to them, and, when we did at last cross the bridge which leads into the village, we found, to our infinite disgust, that the inn *chez Paquet* was at the very top of the hill, on the side of which the place is situated. We had some difficulty in finding it, but at last a friendly woman led us to the door, which we entered at 8.40 p.m., after a walk of four hours from La Bérarde.

We were received by Mons. Paquet himself, an old fellow of more than eighty years of age, of whom our first impression was not favourable, as his garrulousness was, to tired travellers, almost insufferable. But he showed us the bedroom accommo-

dation, which consisted of one room with four beds in it, two rooms with a bed a-piece, and two beds in the salon. We ordered supper, and, as Whymper and Croz arrived ten minutes after us, having deposited Mons. Renaud at St. Christophe, it was not long before we were sitting down to a most excellent meal. In spite of the good fare, that supper was a rather dreary one, as we were all half asleep, and no wonder, our day's work having extended over seventeen hours. However, two or three glasses of 'Chartreuse' set us up, and we finally retired, feeling by no means over-fatigued. We had not had our clothes off since the previous Wednesday night, so our appreciation of clean beds may be left to the imagination.

Tuesday, 28th June.—I was awoke at 7 a.m. by the sun streaming in at the window, so jumped up, pulled Walker out of bed, and went to perform a similar kind operation on Whymper, but, on entering his room, found that he was very unwell, and, at the moment, quite unable to get up. We sent him in some tea and toast, which was all he could take, and sat down ourselves to a capital breakfast, which old Paquet came in and superintended. He appeared in a far more amiable light than last night, and was most anxious for all our wants to be well attended to. He was very curious to know what had made us come to *his* inn; and when we told him that it was recommended in an *English* guide-book, his delight knew no bounds. We took the opportunity of impressing on him that what English travellers looked to most was cleanliness; that the food and beds might be coarse or rough, but that they must be clean. We certainly had no reason to complain on that score, and the charge for all we had had was extraordinarily moderate. Our programme for the day was, to walk to Bourg d'Oisans, and take a carriage from there as far as the top of the Col du Lautaret, where we proposed to sleep at the Hospice, preparatory to crossing the Col du Galibier to St. Michel to-morrow. After breakfast we found Whymper better, but still far from well, so it was arranged that we and Almer should go on to Bourg, secure a carriage there, and bring it to the point where the path from Venos falls into the Lautaret road, where he and Croz would be waiting for us. Accordingly, at 9.50 a.m. after

an affectionate farewell from Mons. Paquet, for whom we really began to entertain quite a regard, we set off. The path for a considerable distance ran along the right bank of the stream, and, indeed, does so the whole way. But, on arriving at a bridge, we found a notice stuck up that further passage along the right bank was *défendu* because of works in progress, and we, in our innocence imagining that the notice was meant to be attended to, crossed over to the left bank. We had in consequence a rougher, but, I believe, rather shorter, walk, but were told by a native whom we met that we need not have regarded the notice. The scenery was throughout pleasing but in no way remarkable, the track leading through several hamlets buried in trees, the inhabitants of which stared at us as though we had been strange monsters, our axes, I fancy, puzzling them considerably. Near the junction of the Venéon with the Romanche the valley gradually opens out into a flat, sandy plain of considerable extent, which must be a perfect furnace, as it is hemmed in on all sides by a steep wall of cliffs. Just here the path became vague, and finally disappeared, having, doubtless, been washed away by the river, which gave manifest evidence of being occasionally somewhat erratic in its movements. We had in consequence a rough and rather disagreeable scramble along the hill-side, but at last fell into a good but dusty road, which brought us into Bourg d'Oisans and the Hotel de Milan at 12.25 p.m., after a walk of two hours and a half from Venos.

On entering the *salle-à-manger* we were almost knocked down by the stench of garlic; so, having impressed upon the fat and oleaginous landlord that we had not eaten for a week, and required food, we fled over the way to Mons. Michaud, the chemist and photographer of the place, to see what we could find interesting in his collection. He was most civil, and informed us that he was going up to La Bérarde to photograph, under the impression that all the high peaks and glaciers were within sight of that place. We disabused him of this notion, and gave him a list of good points of view, particularly desiring him to visit the Vallon des Etançons and take a view of that side of the Meije, which he promised to do, and send us speci-

mens to England. We got very fair photographs of the Brèche and Bourg, but his collection was most rich in views of the Grande Chartreuse. By the time we returned to the hotel, luncheon was ready, and, having done justice to its merits, we went and stood at the door, waiting for the arrival of the carriage we had ordered, and here we had the good fortune to meet in the flesh a celebrated character of whom we had heard, but whose existence we had supposed mythical.

At the door was standing a young Frenchman, with whom we got into conversation, observing that we had just made the ascent of the highest mountain in the country. 'Oh,' replied he, 'sans doute le Pic de Belledonne;' a rather elevated Rigi in the neighbourhood. We informed him that our conquest was not the Pic de Belledonne, but the Pic des Ecrins, on hearing which he smiled blandly, never having heard the name before, and, evidently meditating how he might avoid showing his ignorance, finally contented himself with a spasmodic 'Ah!' After a short pause, he enquired whether we had been up Mont Blanc, and, on *my* replying in the negative, went on to say that *he* had, about ten days before. We were astonished, as, without wishing to reflect on the appearance of the worthy Gaul, I must say that he did not give us the idea of a man capable of such a performance. However, we, in our turn, smiled blandly, and inquired whether, so early in the season, he had found the ascent difficult, and whether he had had a good view from the *summit*. 'From the summit!' said he, 'I did not go to the summit.' We ventured to inquire how high his wanderings had reached. 'Mon Dieu,' replied he, 'jusqu'au Montanvert!' Our politeness was not proof against this, so we broke off the conversation abruptly, and retired to indulge our merriment unchecked.

There was a long delay before the carriage made its appearance, and, when it did, we found there was only room for three, and, as we were five, this was obviously of no use, so the horses had to be taken out, and a larger vehicle, with some difficulty, found. This entailed a further most vexatious delay, and the consequence was, we did not get away till 2.30 p.m., exactly an hour after the time we had agreed with Whymper to pick him

up. Having crossed the Romanche, we rattled along over the level and dusty road as far as the point of junction of the path from Venos, where we found Whymper and Croz in a rather disconsolate frame of mind. They had been there nearly an hour and a half, and, naturally, were inclined to think we had not been quite so diligent as we might have been, whereas the detention was on our part quite unavoidable. From the look of the country a stranger would imagine that the sources of the Romanche must be looked for up the valley of the Venéon, which is the natural continuation of the main valley above Bourg, from which place no other outlet is at first visible. But the parent stream actually forces its way through a cleft in the side of the valley, whose existence would scarcely be suspected. This is the defile of Les Infernets, forming by far the most picturesque section of the Lautaret road, which is carried most skilfully along its precipitous flanks, at a great height above the bed of the stream. Several villages are perched in most inaccessible looking positions at various points along the north side, and serve to give variety to the scenery. The road is well made and kept, and along this portion of the route passes several projecting spurs by means of short galleries pierced through the rock, which are, however, by no means waterproof. Passing through the wretched hamlets of Freney and Le Dauphin, where the squalid appearance of the inns is only equalled by the pretension of their names, we gradually entered the celebrated Combe de Malval. The great expectations we had formed of this gorge, which has been compared to the Via Mala, were much disappointed. The rocks on either side are neither so steep nor so lofty as we had imagined, while the long-continued scene of desolation becomes monotonous in the extreme. There is not a shrub nor a tree visible, nor is a single habitation passed with the exception of a few wretched miners' huts. The cliffs on the south side support the Grand Glacier du Lans, and the tongues of glacier which, fed by that great reservoir of névé, are forced down through the several gorges and openings in the supporting wall, are the most interesting objects in the scenery. We kept a careful look-out for a waterfall, called the 'Saut de la Pucelle,' but were unable to identify it, as, although we passed

several considerable ones, none was so pre-eminent in height and volume of water as to be distinguishable from its fellows, and our driver could not assist us. The road is not at all steep, but, wherever there was the slightest pretence of a rise, our never very rapid pace degenerated into the slowest of walks, so, as there was a cold wind blowing in our faces, Walker and I got down and walked some way through the Combe. The Rateau and Meije, with its glaciers, gradually came in sight, and at 6.35 p.m. we reached La Grave[2] where we went again to the inn *chez Juge*, and, having ordered dinner, hurried to the Post-Office, to see after letters and newspapers.

The worthy postmaster instantly recognised us as the party who had attacked the Brèche, and insisted on our coming into his private room, and talking it over. He informed us that we had been seen climbing the last slope, and on the Col, and that the sight had created the greatest excitement in the village, where a passage in this direction had always been considered impracticable. On at last emerging into the street again, we found that the news of our arrival had spread, and that our exploit had really caused more enthusiasm than we could have supposed to have been possible in so apathetic a population. The amount of hand-shaking we had to go through was almost painful, and, at last, one excited individual seized hold of us, and, having proclaimed himself to be the 'plus grand chasseur du monde,' insisted upon our coming into his house, where he had something to show us. He at the same time apostrophised us by the most endearing epithet in the native vocabulary, which had so powerful an effect on us that we felt constrained to humour him. What our friend had to exhibit was a telescope affixed to his window, commanding a view of the Brèche, through which we traced the greater portion of our route. He also forced us to take a glass of Cognac with him, and then let us go; his swagger and conversation during the interview having been something really too delicious. After a rencontre with our friends of the *Gendarmerie Impériale*, who again condescended to be mildly facetious, we went in to our dinner, which was a very tolerable one, and, so soon as that was done, ordered the trap to be made ready.

The driver had an exaggerated idea of the amount of rest the horses required, so took his time about putting them to, and it was 8.30 before we were able to start, when it was of course nearly dark. A short distance on, the road passes through two tunnels, of which the second is of immense length (more than 600 yards), indeed, I believe, far longer than any other in the Alps, and lit by lamps at intervals. I shall not forget that drive in a hurry. The cold was most intense, and Walker and I, who sat in front alongside the driver, were perfectly perished, in spite of the protection of our plaids. He and Whymper had the 'pipe of peace' as a consolation, which was denied to me. Croz had never had his pipe out of his mouth since leaving Venos, and was consequently now in a state of torpor, while Almer fell asleep with his usual facility. The road mounts steadily the whole way, so that we never got out of a walk; and the night, though clear and cloudless, was very dark, so that we saw nothing—no great loss I imagine. Altogether it was the dreariest thing possible, and the distance, although only ten miles, seemed endless. The driver walked near his horses' heads the whole way, and, had we been wise, we should have done the same thing, as it was freezing hard. As we neared the top of the Col, we got into a trot, which finally landed us, at 11.0 p.m., at the Hospice du Lautaret, a large massive stone building, in which there was not a single light, or any sign of life visible. On getting down, I could scarcely move from cold and stiffness, and never in my life was so glad to have arrived. But it seemed for a long time that, after all, we should have to pass the night in our trap, as our repeated knockings met with no response. A big dog outside at first made hostile demonstrations, but was at last persuaded that our intentions were pacific, and then declined even to bark, for which we should have been really grateful to him. Finding that mild measures were of no avail, I caught hold of the knocker and played 'Aunt Sally' on the door for nearly ten minutes without stopping, using first one arm, and then the other. The popular melody was effectual, and the door was at last opened by the man in charge, who abused us heartily for the noise we had made, while we returned the compliment for his delay in open-

ing. Visitors not being expected, we had to wait a long time while beds were being prepared, so passed the interval in heating a good supply of wine, which put fresh life into *our* chilled frames, and good humour into our landlord, whom we invited to join us in its consumption. We were in due course shown to rooms, lofty and bare but clean, and were not long in turning into our beds which were also clean, though coarse, damp, and icy cold.

Wednesday, 29th June.—Shortly after 7 a.m. I tumbled out of bed, my slumbers having been undisturbed, save by a deluded cock, who crowed at intervals during the night in a sepulchral tone, which suggested that he was suffering from a violent indigestion, and that any one who would wring his neck would perform an act of kindness. A glance out of window showed that it had frozen hard in the night, the ground being covered with hoar-frost, and also that there was a promise of a day, for our last walk in Dauphiné, as fine as those with which we had all along been blessed. The view from the Hospice, which is built on the very top of the Col du Lautaret, 6740 feet above the sea, is not very extensive, and interesting only in one direction, viz., towards La Grave, where the north-eastern angle of the Meije is well seen. The eastern face of the mountain was the only one we had not hitherto seen, and the view we now got of it enabled us to clear up a topographical mystery which had puzzled us considerably. It will be remembered that, on the passage of the Brèche de la Meije, our attention had been drawn, while descending the Glacier des Etançons, to several couloirs leading up to gaps in the ridge forming the right bank of that glacier, the most northerly of which looked especially tempting, and ought, according to the French map, to have communicated with the Glacier de la Meije, on the north side of the Meije itself. Our observations, however, from the Bec du Grenier had shown that this could not possibly be the case, and we had ever since speculated as to where any one, attaining the gap in question, would really find himself. Looking now at the eastern face of the Meije, we saw a very extensive glacier, steep and crevassed, divided into two arms by a projecting ridge of rock, which could be nothing but the Glacier de l'Homme of

the French map. In the ridge at the head of this were several gaps, of which one, particularly well marked, just to the south of and close under the eastern peak of the mountain, was beyond all doubt our old friend. We all agreed that a pass to La Bérarde from the side of the Lautaret road might be made through this gap.[3] The ascent would be difficult, as the glacier is broken up into steep cliffs of névé, and the height is great, but the thing certainly could be done, and, the gap once gained, the descent to the Glacier des Etançons would, probably, not be found very difficult. On the other hand, the pass would certainly be longer than the Brèche de la Meije and also less interesting, but it might be convenient at times, when the Brèche is, as I think it will sometimes be found, impracticable. The people of the Hospice gave us an excellent breakfast, of which a large dish of fried potatoes was the principal feature, and the charge for everything was absurdly moderate, the bill for us three—for breakfast, beds, attendance, and the wine last night—amounting to only thirteen and a half francs. Whymper was better this morning, but preferred following us at a rather later hour; so, as soon as we had finished breakfast, Walker, myself, and Almer took our departure at 9.20 a.m.

Our route lay for ten minutes down the high road of the Lautaret towards Briançon, but at the end of that time we struck away to the left towards the ridge over which passes the Col du Galibier.[4] There was at first no path, but we soon fell into a faint track, over rich and luxuriant pastures, steering to the left in order to cross a small torrent, between us and a group of chalets, which we had been told at the Hospice we must steer for. A rather long detour was necessary before we could cross the deep gully which the torrent has made through the friable soil, but, once on the other side, we made straight for the chalets, which were squalid and miserable in the extreme. From here it seemed that it would be easy to get on to the ridge anywhere, but a cross, perched on a point of it, well to the left, determined us to select that line of march. Nothing could have been easier or more utterly devoid of incident than our route, and we plodded leisurely on, over rough and rather steep ground, until we reached the foot of the final slope. We might

with facility have gone straight up this, but we were heavily laden, and in consequence slightly lazy, so carefully kept to the series of very easy zig-zags which were faintly marked along the side of the shaly slope. These soon came to an end, and brought us, at 11.5, to the Col du Galibier, 9154 feet in height, a broad stony ridge, on which we threw ourselves to admire the beauties of nature.

The view to the north was not remarkable, which rather disappointed us, but clouds had risen in the distance, so, perhaps, we did not see so much as we might have done under more favourable circumstances. To the west was a confused mass of tolerably lofty peaks, rising from a considerable tract of snow, which we imagined to be part of the group of which the Aiguille du Goléon and Bec du Grenier are prominent members, but we could not come to any satisfactory conclusion on the subject, and no map that we had threw any light on it. Any one who does not fancy hard work, but likes mild climbing and gorgeous views, could not do better than explore the long ridge which forms the boundary between the Maurienne and Dauphiné, and determine the true relative positions of the extraordinary complication of peaks, ridges, and valleys that radiate from it towards the Maurienne. Towards the south the view was more interesting, as we looked almost straight up the long valley which runs from near Villard d'Arène to the Glacier d'Arsines, and source of the Romanche. The glacier itself, which is almost as broad as it is long, and, to all appearance, perfectly smooth and level, was also well seen; and, above the tremendous precipices at its head, which are extremely fine and inaccessible in appearance, towered our vanquished enemy—the Ecrins, which presented to us its face above the Glacier Blanc. No position could have been more favourable for retracing the route we had followed to the summit, as the whole of the mountain above the great bergschrund was seen to perfection at a comparatively small distance.[5] We made out the point where we had turned the bergschrund on the ascent, the rocks we had first touched, the ice-wall up which we had toiled so long, the rocks above them, the gap between the peaks above which we had quitted the arête in descending, the slope down which we had cut our

way to the bergschrund, and the exact point at which we had finally leaped over that formidable obstacle. We looked at our conquest with proud satisfaction, which Almer fully shared. He took a last look at the glorious mountain with my glass, and, on laying it down, exclaimed, emphatically, that it was indeed a 'Teufel,'—which it certainly was. The Meije also came out well, and the gap at the head of the Glacier de l'Homme looked more than ever like a pass. Almer, indeed, quite ridiculed the idea of any serious difficulty being found in effecting it, but we thought that, in this case, he allowed his sanguine disposition to carry him too far, as it seemed to us that the ascent of the Glacier de l'Homme would require a good deal of diplomacy. We ought to have seen Monte Viso, but some clouds had gathered in that direction also, and we were obliged to imagine it, contenting ourselves with the long zig-zags of the Lautaret road, on its descent towards Monetier. A cold wind was blowing over the Col, so we took in all there was to see as rapidly as possible, and at 11.15 bade farewell to the Alps of Dauphiné, and turned to descend to Valloire and St. Michel.

We had a choice of two glens into which to descend, which appeared to unite lower down. Of these the one to the left is called by Joanne 'Combe de la Lauzette,' and that to the right, 'Combe de Valloire.' The descent into both appeared equally practicable, and chalets were visible in the Combe de la Lauzette, but we chose the track to the right, wrongly, as I thought at the time, but rightly as appears from a subsequent study of Joanne, who, on a pass so comparatively frequented, may probably be believed. Passing over steepish banks of shale, on which patches of snow were still lying, we soon landed on pastures where the diversity of paths was puzzling, but seeing some chalets on our right, we allowed our natural desire for milk to influence our choice of a route, and steered for them. They were soon reached, and, after some trouble, their occupants, in the shape of two women and a girl, were discovered, but proved to be the most uncivil specimens of their class we had yet come across. Our request for *cream* was received with jeers and laughter, as though the idea was an exceedingly good joke, and the small quantity of milk that was at last brought us was

poor in the extreme, and far from fresh. We were, nevertheless, charged an extortionate price for it, and so evidently looked upon as intruders, that we had no temptation to make a long halt, and in a very few minutes took ourselves off. We were surprised to see a man and woman very busy picking the violets which grew all round in profusion, and still more surprised to hear that they had crossed the Col on purpose, and actually found it pay to take them to Bourg d'Oisans for sale. The descent below the chalets became very rapid, and the path struck well away to the left, along the side of the spur which divides the Combe de Valloire from the Combe de la Lauzette. The former was at our feet, and, as we descended into it, we got a view of the rugged range at its head, over which goes the Col des Rochilles to Briançon. A good deal of snow was visible at the head of the Combe, and the pass must be more laborious, and, I should think, less interesting than the Galibier, which is, however, a rather less direct route to Briançon. The path led us down by steep and rough zig-zags to the level of the stream, to the right bank of which we crossed by the first bridge, and were then fairly in the main valley of Valloire. The track thence-forward fell very gently, and brought us, at 12.45 p.m., to the deserted hamlet of Bonnenuit, the highest in the valley, situated exactly opposite the entrance of the lateral Vallon des Aiguilles d'Arves, on the opposite side of the stream. Looking up this we had an exceedingly fine view of two out of the three Aiguilles, and the small hanging glacier between them. Their boldness of form was as remarkable as from all other points of view, and we left them behind us, feeling tolerably confident that they would remain unscaled for many a long day. At a short distance below Bonnenuit we crossed to the left bank of the stream, and were once more on familiar ground. Our former agreeable impression of the scenery of the valley was confirmed, and we thoroughly enjoyed the walk onwards to the village of Valloire, which we reached at 1.55 p.m., having met, *en route*, our hostess at the chalets in the Vallon des Aiguilles d'Arves, who told us that she ascended and descended regularly every day.

We lunched at the little inn off bread, butter, and a peculiarly excellent cheese, almost like a Stilton, which we made look rather

foolish by the time we had done. We were astonished to meet in this out-of-the-way spot a specimen of the 'Commercial Traveller' genus, who was very busy displaying his samples to the landlord and a gathering of the villagers, and appeared to be receiving liberal orders. At 2.30 p.m. we took our departure, and leisurely followed the capital but rather steep path leading up to the chapel and lofty crosses which mark the Col de Valloire, where we arrived at 3.15. We had hoped from here to get a last view of the Ecrins, but were doomed to disappointment, as heavy clouds covered the sky in that direction. A storm was apparently brewing on the other side of the Arc, and warned us to hasten our steps if we wished to reach St. Michel, which was visible far below us, with dry garments. We accordingly made good use of our legs, and rattled down the steep and stony track as fast as possible, over the open ground, through pleasant woods, and past the scattered cottages at the base of the hill, until the main valley was at last reached. The river was crossed, and at 4.10 p.m. we walked into St. Michel, which we had left just nine days before. The passage from the Hospice had just taken six hours' actual walking, and from Valloire one hour and forty minutes.

We went to the Hotel du Bon Samaritain, opposite the station, and having secured bedrooms, our first business was to order dinner to be ready at the Buffet, which is kept by the same proprietors, at 6.0, by which time we concluded that Whymper and Croz would have arrived. We then ordered up unlimited water, and indulged in the first wash we had had for more than a week, and, that not unnecessary operation over, sat ourselves down to write despatches to friends in England, to report progress so far. Shortly after 6.0 Whymper and Croz arrived, and we soon sat down to the first dinner, worthy of the name, we had had since leaving Paris. There was nothing to mar the pleasure of that dinner. Whymper was much better, and we had the satisfaction of seeing Almer and Croz sitting at an adjoining table, also enjoying the fleshpots, and poking fun at each other. The two men had contracted a thorough liking for each other, and, although unable to express their ideas in language, contrived, by pantomime and various little devices, to show their mutual

regard. Our various victories were, of course, celebrated in bumpers of champagne, and the health of the Ecrins was drunk with especial honour, and, I am sure, with a feeling of the greatest respect on the part of all five of us. After dinner we discussed our future movements. Our programme was, to cross to-morrow the Col des Encombres to Moutiers Tarantaise and Bourg St. Maurice, where Walker was to leave us, to join his father and sister at Aosta. On Friday, Whymper and myself were to go over the Col du Bonhomme to the Pavillon Bellevue, whence we hoped, on Saturday, to make the ascent of Mont Blanc, and descend to Chamouni in the day. To reach Bourg would be a long day's work, and an early start would be necessary, which was fixed, after some discussion, for 3.30 a.m. The champagne had had its effect on Croz, who was in a state of glorious excitement, but became at last so noisy and loquacious that we were relieved when he finally took himself off to his well-earned slumbers. Whymper and myself packed and sent off by train to Geneva and Chamouni all our baggage except our plaids, and, at length, every preparation for the morning's start having been made, we all went to bed. At any time our beds would have been thought comfortable, but, after all our toils, we agreed unanimously that we had never lain on more deliciously-luxurious mattresses.

NOTES TO CHAPTER V.

[1] Probably owing to the bad weather experienced on this expedition, Moore's notes on the locality are not quite so clear and accurate as on other occasions. From a comparison of such maps as are attainable and the statements in the *Climbers' Guide*, it appears that the highest point on the Crête des Bœufs Rouges (11,333 feet) is just at the junction with the ridge running south from the Col du Sélé, about one and a quarter mile from Les Bans (11,979 feet). The actual Col de la Pilatte (11,155 feet) is approximately midway between these two points. There is a second Col known as the Col des Bans (also 11,155 feet), first crossed by Monsieur de Castelnau in 1877, between the Col de la Pilatte and Les Bans itself, and about half an hour west of the Pilatte. It is reached from the south by a couloir apparently very similar to that described by Moore. Neither pass is likely to become a frequented route, especially as the views on the route of the Col du Sélé are much finer.

[2] There are now two hotels, fair in size and quality, at La Grave. The Hotel de la Meije is now kept by the Frères Juge (presumably sons of the old

proprietor), and the Hotel des Alpes is kept by Tairraz, who now (1900) also keeps the capital little mountain inn at La Bérarde, which has taken the place of Rodier's primitive accommodation. La Grave is noted equally for the splendour of its view and for the infinity and voracity of its flies.

[3] The gap referred to appears to lie between the eastern summit of the Meije (12,832 feet) and the point called Le Pavé (12,570 feet) is probably from 12,000 to 12,200 feet in height. It lies at the head of the narrow *Glacier du Lautaret*, which is practically a south-western arm of the *Glacier de l'Homme*. It does not seem ever to have been crossed, and is not mentioned as a pass in the Dauphiny *Climbers' Guide*.

[4] A good char road has recently been constructed over the Col du Galibier (9056 feet), passing through a tunnel below the top of the ridge crossed by the mule track. (The view from the top is very much finer than from the road at the level of the tunnel.) There is a regular diligence service by this route (which is rough on the north side and somewhat steep in the zigzags on the south side) between St. Michel and Lautaret, *viâ* Valloire. The road does not cross the old Col de Valloire by the Chapelle des Trois Croix (see pp. 4 and 117 *ante*), but passes through the ridge to the north of it by a tunnel, descending to St. Michel in huge zigzags.

[5] See the description of the view which heads this chapter, and which was taken from the Col du Galibier.

CHAPTER VI

MONT BLANC

Thursday, 30*th June*.—The time to be devoted to our comfortable beds was but too short, and at 2.30 a.m. a loathsome tap at the door warned us that, for us, the night was over. However, painful experience has taught me that reflection only makes the sad necessity of getting up more sad, so without delay I responded to the knock, lit our candles, and commenced the labour of dressing. On going down to breakfast and receiving the bill, we found that our repast of last night was charged for item by item, and the total, consequently, raised to a most extortionate sum, about three times what we should have paid elsewhere for a similar dinner. We protested vigorously against this, but without success, so were obliged to submit in a very bad temper, which was not improved when we found that the guides had been treated in a similar fashion. They were naturally horrified to find that in one night they were each mulcted of more than an ordinary day's pay; but remonstrance was as unavailing on their part as on ours, and they had to pay up. We were unable

to get Whymper up, and were, therefore, reluctantly compelled to start without him, as we had a long distance to get over in the day. Accordingly, at 3.55 a.m. we set off with Almer, half an hour later than had been arranged, leaving Croz in a disconsolate frame of mind outside the Buffet. The appearance of the weather was not very promising, but it looked as though it might improve, and, at any rate, we could not well come to any harm, as there was said to be a track right over the Col. Passing up the long main street of St. Michel, we turned up a dirty and narrow lane to the left, which led us through the mean and squalid part of the town to the open country behind, where the number of paths would have been puzzling, had not Almer last night very discreetly gone over the first part of the route with Croz and a native, and obtained directions on the subject. So soon as we were well out of the town, the path continued for a long distance by the side of a small stream, passing through luxuriant woods, and mounting steadily, until we were at a great height above the town, close to a tall, solitary tree, which is very conspicuous from below, and had been pointed out to us as a landmark for which we must make. The view from here of the valley of the Arc at our feet was very pleasing, and made a short halt to take breath after the steep pull up specially agreeable. The entrance to the Valley of Valloire was exactly opposite to us, and we could trace all the windings of the path from the Col, down which we had yesterday hurried.

We now gradually penetrated into an extensive upland valley, shut in on both sides and in front by rocky ridges of considerable height, from which low peaks rose here and there. The Col was visible straight in front, presenting no apparent difficulty, but separated from us by a long tract of desolate country, the passage of which promised to be monotonous and tiresome. Walker was laden with all his baggage, no slight weight, and certainly not to be carried up hill longer than necessary, so at the last village we hired a good-looking youth for a trifling sum to act as a beast of burden as far as the top of the Col. All this time the weather, after a transient improvement, had been getting gradually worse, until at last down came the mist, and blotted out the landscape, such as it was, from our

vision. We consoled ourselves with the reflection that our loss was not great, and that, in point of fact, we were lucky not to be favoured with a broiling sun, which would have been far more disagreeable. Nothing could exceed the dreariness of the scenery, when an occasional clearance let us see a little way ahead. Of vegetation there was nothing save the coarse grass slopes up which our route lay, and there was not a single object of interest to relieve the monotony of the way, so we mounted along the rough track, which rose steadily but never steeply, looking forward to the chalets, which we supposed we should come to sooner or later, where we flattered ourselves we would go in heavily for milk. But on mentioning the subject to our native, he summarily dissipated our pleasant dreams, by the information that the cows were ill, and produced either no milk at all, or such as was unwholesome, adding that many persons had already been made ill by incautiously drinking it. We came to the chalets in due course, but there were none of the ordinary signs of Alpine life about them. The cows were invisible, and the occupants stood listless and silent at their doors as we passed. Shortly after, we emerged from the mist, and found ourselves apparently close to the Col, to the left of which was the fine mass of the Rocher des Encombres, with a stone man visible on the top of it. The distance, however, was greater than we had supposed, and our consequent disappointment, of course, magnified it still more. But all things must come to an end, and, following the gentle zig-zags, we reached, at 7.25 a.m., the ridge of the Col des Encombres, in three hours and a half from St. Michel. The height of the pass must be over 8000 feet,[1] but there is not much view in either direction; to the north none at all, and to the south, some snow-covered peaks in the neighbourhood of the Combe de Valloire, which, in the cloudy state of the sky, we could not identify.

At our feet grass slopes stretched away to the head of the long Val des Encombres, into which we should naturally have descended. But we had been told at St. Michel that the better plan was to strike the ridge which forms its right side, and separates it from the parallel Val de Belleville, follow it until we came to a stone man, and then turn down to the village of

St. Martin de Belleville in the latter valley. Our native told us the same story. So, having sent him on his way rejoicing, we started off in the direction indicated, having only halted a very few seconds. Skirting the head of the valley, we soon fell into a faint track, which was visible for a long distance in front, always near the crest of the ridge, but on the Encombres side. It led over gently undulating ground, and the walking would have been pleasant, if a fine rain had not come on, followed by a slight fall of snow, which the wind blew into our faces. We looked anxiously out for some signs of the path taking the looked-for turn down into the Val de Belleville, but, although we passed several stone men, the track ignored them all, until at 9.0 we actually did pass through a sort of Col, between two eminences on the ridge, on to the Belleville side, and congratulated ourselves that we were going to descend in earnest, the last hour not having brought us twenty feet lower than the Col. We were, however, disappointed, as we gradually wound round again, until we once more overlooked the Val des Encombres at a great depth below us. It presented a most remarkable appearance, as both its steep flanks were scored by a series of very narrow and deep ravines, the effect of which was very singular. We were beginning to think that we must have missed the way, when we met a party of peasants, who told us that we were all right; and, shortly afterwards, the path took a decisive turn to the right, and led us by a rapid descent to some chalets on the slopes above the Val de Belleville. I put my head into one, with a view to milk, and found its occupants sitting over a fire, doing nothing, but staring so fixedly at the flames that my approach was at first not noticed. There was a general air of misery about the people and place, the cause of which was sufficiently explained by the answer, given in a despairing tone to my request for milk, to the effect that all the cows were and had been for some time ill, and gave no milk at all. In the valley below two villages were visible, one on the right bank of the stream, rather higher up than the other on the left. We were not certain which of these two was St. Martin; so, on our way down, we inquired of a hideous old hag, who was prowling about the hill side, arrayed in a steeple-

crowned hat, of the conventional witches' pattern, at least three feet high, and a capacious cloak to match. I have no doubt the old lady's intentions were of the most amiable character, and that the information she communicated was most valuable, but she signally failed to make us understand a word of what she said, which, indeed, seemed to us an amazing flow of gibberish. We went on our way not much wiser than before, but interpreted some of her gesticulations to mean that the higher village *was* St. Martin, and so steered accordingly. Below the chalets the descent was very rapid, over steep grass slopes, by a well-marked track, which, as we approached the brow of the final descent above the stream, suddenly vanished and left us rather puzzled how to proceed. There was nothing for it but to follow our noses and trust to luck, which, for a wonder, did not fail us, as, after floundering through some fields of long grass, we fell into a broad path, which led down to a bridge over the stream, crossing which a sharp ascent brought us up to the village, which turned out, as we had supposed, to be St. Martin de Belleville.

It was just 10.35, and we had eaten nothing since our early breakfast at St. Michel, with the exception of a small piece of bread which Almer chanced to have in his pocket; we therefore looked out anxiously for some sort of an inn, and seeing a bush (the usual sign) suspended over the door of a corner house in the little 'place,' near the church, went in there. We were received by a gaunt, middle-aged female, who took us into a stuffy inner room, and set before us bread, butter, cheese, and some red wine, while she prepared an omelette. Fortunately we had our own cutlery, or we should have been obliged to eat it with our fingers, as the place only boasted of one rusty old knife, which had only half a handle. However, we were not inclined to be particular, and we were thankful to get anything at all to eat, so consumed our omelette, and sat, pitching into the bread and cheese, until we could really eat no more, and, thereupon, at 11.10 went on our way. The path onwards down the Val de Belleville is exceedingly good, almost worthy to be called a Char road, and we trotted along it merrily, the weather having improved, and the scenery, though not remarkable,

being pretty. We kept throughout to the right bank of the stream, I believe correctly, although there was an apparently equally good path on the other side, passing through several rather considerable villages. We occasionally abandoned the main road to try a short cut, but I don't think we ever gained much, and once, certainly, lost by the manœuvre, after which we gave it up, and stuck to the highway. This, for the first hour and three quarters, ran tolerably on a level, only rising and falling according to the necessities of the ground. At the end of that time we began to go down in earnest, and soon developed the unpleasant fact that Walker was seriously lame. Ever since leaving the Col he had been complaining of an uneasy feeling in his knee, and now the steep descent over a stony path jarred him severely at every step. Our progress was unavoidably slow, and it was with great difficulty he got on at all. He most unselfishly pressed me to go on, but, of course, that was not to be thought of, and, indeed, was the less necessary, as, when we were once down on a level with the stream, the pain of walking was not so great, so that we travelled as fast as was needful. The river had carried away the path in places, and men were busy working at it, but we had no difficulty in picking a way amongst the débris as far as the point of junction with the Doron, which flows down from Pralognan and the great glaciers of the Tarantaise. Once over this, a broad plain lay between us and Moutiers, which was soon traversed, we crossed the already broad stream of the Isère, walked through the town, and finally reached the Hotel de la Couronne, on the 'Grand Place,' at 2.15 p.m., after a walk of ten hours and a quarter from St. Michel.

Having ordered dinner, our first inquiry was about means of conveyance on to Bourg St. Maurice, when we were told that the courier would start at 4.15, and had three seats vacant in his carriage, which we had better secure. We did not do so at once, as we hoped that Whymper might arrive, in which case we should hire a vehicle to ourselves, so we simply gave orders that the seats should not be disposed of without reference to us. They gave us an extensive and most excellent dinner, which we did justice to, completely clearing out each dish in succession,

much to the gratification of the waiter, whose civility and attention were beyond all praise. Time passed, and there were no signs of Whymper; so, when the courier came in and said we must make up our minds about the seats as there were applications for them, we had no option but to engage them. Just as we were going to start Whymper and Croz arrived, but it was too late for us to change our minds, so they stopped to dine, and at 4.20 we three started in a clumsy sort of omnibus, holding four inside and one on the box alongside the driver. Upon this occasion the fourth seat was occupied by a loquacious female, who was returning after a long absence to her home at Tignes, which she described as an earthly paradise, with several first-rate hotels,—an account which by no means coincided with what we had always heard on the subject. The cause of her loquacity was explained by the appearance of a bottle out of a basket she had with her, at which, spurning the conventionalities which require the use of a cup, she took frequent and hearty pulls, upon the first occasion offering us second suck. These potations had their natural effect, and she soon found our society somewhat slow; so, much to our relief, she effected an exchange of position with the occupant of the fifth seat outside, and, for the rest of the journey, lavished her endearments upon the more appreciative driver. The valley for a considerable distance above Moutiers is very picturesque, densely wooded, and in many places contracted to a mere gorge, at the bottom of which the river roars at a great depth below. But after a time the scenery became dreary and uninteresting, and I went to sleep, notwithstanding the general discomfort of the vehicle, and especially the cramped accommodation for our legs. I awoke to find our conveyance halting for a few moments at a village, name unknown, and the rain falling heavily, which filled me with anxiety for the fate of my proposed attack on Mont Blanc on Saturday. Resuming our route, I again lapsed into a happy state of oblivion from which I was only aroused by our arrival, at 8.30 p.m., at Bourg St. Maurice, in darkness and pouring rain. We went to the Hotel des Voyageurs, and were shown good bed-rooms, and furnished with a tolerable supper, after which we speedily retired, the day's journey having been a long and

fatiguing one, to be followed on the morrow, in my case, by one scarcely less so.

Friday, 1st July.—The rain came down incessantly all night long, and, when we got out of bed, shortly after 4.0 a.m., there appeared no immediate signs of a clearance, but by the time we had dressed things looked a little better, and we ventured to indulge in the hope of a dry, if dull day, Walker's leg was so painful that he very wisely determined to take a mule over the little St. Bernard to Aosta, whither he was bound, in the hope that a day's rest would remedy the evil. We had a very fair breakfast, and for it and our other accommodation were charged a by no means extortionate sum. I said good-bye to Walker, with the greatest possible regret that our pleasant companionship was for the present over, and at 5.30 a.m. started with Almer for the Col du Bonhomme. Our route lay for a short distance along the road to the little St. Bernard, and in our mutual ignorance we kept along it too far, and had to retrace our steps to the point where the track turns off to the left, and mounts steeply into the narrow glen which leads to Chapieu. This is a mere cleft in the mountains, scantily clothed with pine trees, and has not the slightest pretence to beauty or picturesqueness, but we found the walk singularly pleasant, the path being good, and the air deliciously fresh after the rain.

As we went along, we discussed the probabilities of success on our proposed attempt to effect the ascent of Mont Blanc in a single day from the Pavillon Bellevue, above the Col de Voza, thus avoiding the necessity of passing a night either at the Grands Mulets, or, worse still, on the Aiguille du Goûter. Although it would undoubtedly be a long and hard day's work, we both agreed that the thing could be done, but I was sorely troubled by the absence of Whymper and Croz, as we might find a difficulty in getting a reliable man to accompany us without going down to Chamouni for one. At last, I said to Almer, 'What shall we do if Herr Whymper and Croz do not arrive in time?' 'Do!' said he, in reply, 'wir müssen es allein versuchen' (we must try it alone). I was perfectly astounded at the idea, which would never have entered my head, especially as Almer had never traversed any part of the Aiguille du Goûter route to

the summit, and must confess that, on first hearing it, I doubted the prudence of two individuals alone undertaking such an expedition, but I said nothing, and the matter dropped for the time.

The weather steadily improved until the sky was almost clear, the few clouds visible being fine weather clouds, such as caused us no anxiety. At 8.40 we reached the wretched little hamlet of Chapieu, situated at the junction of the routes from the Col du Bonhomme and the Col de la Seigne,[2] and went into the larger of the two little inns to get some food. The place has a bad reputation, and, according to our experience, deservedly so. I ordered an omelette and a bottle of red wine, and, in lieu of the latter, was furnished with a *chopine* of what was perfect vinegar, of the sourest and most undrinkable character, which not even a copious mixture of water could make palatable, much less wholesome. The charge for the whole was extortionate, and at 9.15 we departed, congratulating ourselves that we were not compelled to make a long halt in such a den of thieves, the situation of which is most dreary and devoid of interest. Our route lay up the western arm of the valley, and immediately began to mount by a rough and steep track over luxuriant pastures on which an immense number of cows were grazing, and which presented a marked contrast to the scene of desolation a little higher up. In front, for a long distance, stretched dreary slopes of barren land and shale, on which large patches of snow were still lying, over which the path meandered in a most promiscuous way, occasionally vanishing altogether. Considering that this is one of the most frequented mule-routes in the Alps, being an unavoidable section of the ordinary 'Tour of Mont Blanc,' it is astonishing that more trouble has not been used to construct a permanent way. It is true, the direction to be followed is indicated by a series of poles, and a cross on the ridge is conspicuous some way off, so that in clear weather there is no difficulty, but, in a fog or bad weather, any one unacquainted with the ground might very easily go astray, and wander for hours over the monotonous and dreary waste without hitting off the Col. We, however, were fortunate in a fine day, and, following the poles, leaving the route of the Col des Fours to Mottet

on our right, reached the Col du Bonhomme, 8195 feet in height, at 10.55 a.m. We had hoped to get from here a good view of the Mont Pourri, which rises behind Bourg St. Maurice, but were disappointed, as in that quarter the clouds still remained heavy.

The natural line of descent from the Col is into the Val de Beaufort, which leads down to Albertville, the opening into the Val Montjoie not being visible until several ridges have been turned. The descent was at first gradual, over deep snow, but became more rapid after we had left the Col far behind, until we were fairly in the Val Montjoie, when a decent path led us through most dreary scenery, past a huge mound of stones, said to have been raised by successive travellers to mark the spot where, years ago, a party of ladies perished in a snowstorm, whence the spot is called the 'Plan des Dames.' At 12.10 we came to the first signs of civilisation in the shape of the chalets of Montjoie. Here we halted for five minutes to get some *niedl*, which was most delicious, but the quantity brought was limited, and the price charged very high, two little facts which showed but too clearly that we were once again on the beaten track of tourists. The view looking down the valley from the chalets is most charming. The valley is carpeted with the greenest and most beautiful turf, worthy of an English park, while the lower slopes of the mountains, right and left, are clothed with pine woods, which, perhaps, struck us the more from our having hitherto this year been strangers to anything of the sort. Above the trees, on the right, appeared, resting on precipitous cliffs, the extremity of the lower ice-fall of the great Glacier de Trélatête,[3] over which lies a pass to the Col de la Seigne, by which the Col du Bonhomme may be entirely avoided. Below the chalets the pastures were dotted with cows, which were worthy of the scenery amidst which they were placed, as, even for Alpine cows, they were singularly fine and clean looking,—their appearance fully accounting for the superior excellence of the *niedl*. The walk onwards was most enjoyable, and the sensation of once more treading a grassy Alp, after the mean apologies for that article with which we had lately been obliged to be content, was most luxurious. Below Nant Bourrant, which we passed at 12.50, the beauty of the valley culminated, the path leading

through a superb gorge. On our left the woods were denser and more luxuriant than before, while, in their midst, the torrent rushed furiously over its uneven bed, at the bottom of a deep ravine, forming numerous fine falls. We quite agreed that this portion of the walk amply repaid us for the monotony and dreariness of the earlier part of the route. On our right we passed the glen, at the end of which once was the Glacier d'Armencette. Its place is marked by a vast expanse of moraine and débris, showing the former greatness of the glacier, which is now represented by an insignificant patch of snow. The path throughout is most villainous, but, bad as it is, must have taken some trouble to make, as it is for the most part hewed out of the solid rock in a series of long smooth slabs, which must be rather trying for mules.

At 1.55 p.m. we reached Contamines, a considerable village, where we determined to dine; so we went to the Hotel du Bonhomme, kept by Madame Mollard, the wife of the well-known Chasseur, whose name figures so often in the accounts of the early attempts to ascend Mont Blanc from the side of St. Gervais. Madame Mollard intended to be very civil, but her manner was peculiar. She walked about the house like a person having a 'silent sorrow,' which she was doing her best to conceal, but which *would* occasionally crop up; or, like an unappreciated genius, struggling under the misconceptions and prejudices of an unsympathising world. After some time, I was supplied with a tolerably good dinner, of which she was apparently cook and servitor. In the middle of it she suddenly inquired of what nation I was, and, on hearing that I was English, abruptly threw down the dish she was carrying, seized hold of the visitors' book, and, with an air of triumph, thrust it down before me, pointing to an entry of the visit of the 'eldest son of the Queen of England' under the title of Baron Renfrew.

Dinner over, we set off again at 3.40 down the road leading to Bionnay. Very shortly we met an English gentleman and his daughter, mounted on mules, attended by an exceedingly nice-looking Chamouni guide, who inquired whether I thought the Bonhomme was yet passable for mules, as his travellers proposed crossing. He informed me that there had been no ascents of

Mont Blanc this year, but that some of the guides had been up to the Grands Mulets, to look after the hut, a rather disagreeable piece of news, as we had fully calculated on finding a track down from the summit to the Mulets. After passing the stream, which carries down the drainage from the Glacier de Miage, we left the road at 4.20, and struck up to the right through fields, towards the entrance of the valley, which is closed at its head by the Glacier de Bionnassay. The track was steep and shadeless, and the heat of the sun scorching, and, after a hearty dinner, I found the pull up rather punishing, but we gained the valley at last, at a point just opposite the village of Bionnassay. The Aiguille du Goûter was now straight in front of us, and a glance showed that there was an enormous and most unusual amount of snow on it; in fact, it was perfectly white. Almer looked at it, and then merely observed, 'Etwas Schnee!' (some snow), an oracular remark, to which I made no reply. The truth was, that neither of us liked to communicate to the other the unfavourable impression this state of things made on him, and there was always the chance that on nearer approach things might not turn out so bad as they looked from a distance. We kept on the left side of the valley, along the lower slopes of the ridge separating us from the basin of the Glacier de Miage, and having the Col de Voza and the Pavillon Bellevue clearly in view on the opposite side.

As we went along we had a final discussion about Mont Blanc. Almer was stronger than ever in his desire for us to try the thing alone, and nothing that I said shook his confidence. I pointed out that as regarded the ascent I had no fear, since, once at the base of the Aiguille, we had simply to exercise our climbing powers to reach the summit, but that the descent to Chamouni was a very different affair. On that side there was no actual difficulty, but a great number of concealed crevasses, and, although I was perfectly sure that, in the event of my slipping through into one, he would be able to stand the jerk and pull me out, yet I felt that, with every exertion and care on my part, I could not be confident of my ability to do the same by him should he meet with a similar misfortune, which, as leader, was of course extremely probable. 'Oh,' said he, 'I do not fall very easily into a crevasse;' and wound up with, 'es muss gehen!'

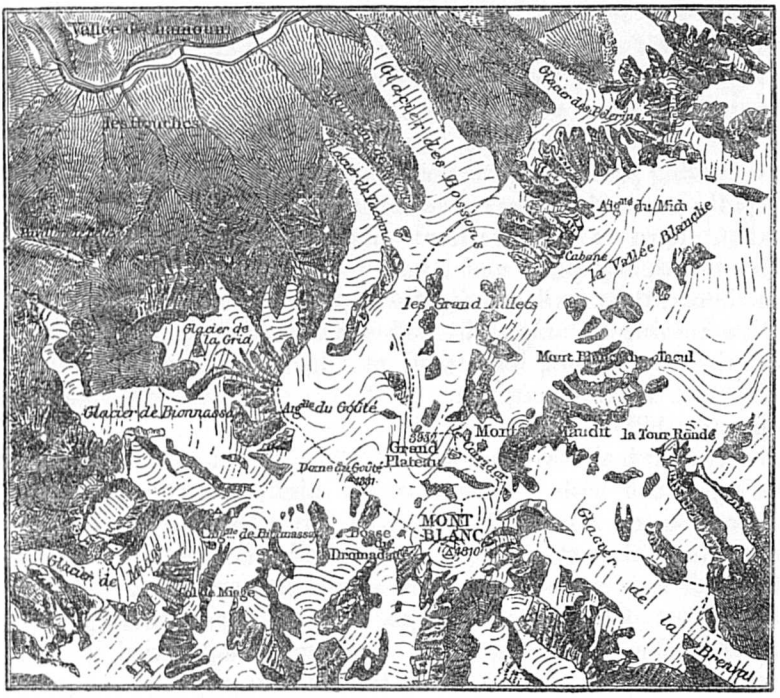
After which nothing more was said, but it was understood that, weather permitting, we were to do our best.

At 5.35 we crossed to the other side of the valley by a bridge near its head, not far from the moraine-covered end of the Glacier de Bionnassay, and, striking up the steep grass slopes, soon entered the grateful shade of the dense woods which clothe the side of the hill. We took it easily through the wood, as the way was steep and the shade pleasant, but in due course emerged on to the open moorland above, when a very few minutes brought us to the Pavillon Bellevue[4] at 6.20 p.m., in ten hours and a half actual walking from Bourg St. Maurice.

Almer and I had agreed that in the dark we should be unable to hit off the narrow track along the Mont Lachat, by which alone it is possible to approach the base of the Aiguille, and that for that portion of the route we must hire a native acquainted with its intricacies. We accordingly told the good people of the Pavillon to find us such a man, and their exertions soon produced one François Battendier, who professed unlimited knowledge of the way, and whom we, therefore, engaged to go as far as the Tête Rouge, at the very foot of the Aiguille, beyond which he would probably be more of an encumbrance than an aid to us. Having supped off the eternal omelette, I sat outside watching the sunset, which was tolerably favourable, and gave us cause to hope for a fine day on the morrow. We both agreed that it would not do to be caught in clouds on the summit, as Almer did not profess to be well enough acquainted with the Chamouni side of the mountain to be able to find his way down over those vast snow-fields in any weather. The people of the Pavillon were struck dumb with amazement when they first heard of our project, but entered into it most heartily, and expressed the greatest anxiety for its success, as they foresaw considerable advantage to themselves if others were persuaded thereby to follow our example. I soon found the air uncomfortably chilly, and retired in-doors, where there was nothing to detain me from bed, an early visit to which was the more advisable, as we were to start as soon after 1.0 a.m. as possible. Like the rest of the building, the tiny bed-rooms were models of cleanliness, and the beds, though coarse, were soft and

comfortable, and furnished with a sufficiency of coverings, no slight consideration at such an elevation; altogether, I was well satisfied, as warm as a toast, and soon asleep.

Saturday, 2nd July.—At twenty minutes after midnight Almer came into my room, and, in reply to my anxious enquiry about the weather, stated that it was 'Nicht ganz gut,' being



MONT BLANC

rather cloudy, but asked me to go outside and see what I thought about it myself. I, accordingly, tore myself from my warm bed, and, standing on the little wooden balcony that runs round the Pavillon, long and carefully scanned the heavens. Immediately over our heads the sky was clear and studded with stars, but towards St. Gervais it was overcast with threatening clouds. I did not know what to think. The natives were quite positive

that the clouds meant no harm, and we should have a fine day; but, in their case, 'the wish was father to the thought'; and Almer, when appealed to for his opinion, took refuge in the oracular—'Man kann nicht bestimmt sagen,' 'one cannot say for certain.' The risk of being caught in the clouds when up above was not to be run lightly, so I at last decided that we would at least wait for half-an-hour, and see how matters looked then. The result of this arrangement was, that I was able to give myself another warming in bed. But the respite was not long, as, at 12.55, Almer again appeared with the joyful news that the weather was much better, and that we would certainly start. It was quite true, the clouds were breaking up, and everything presaged a glorious day. All our preparations were rapidly made, breakfast consumed, and I wrote a note to be taken down to the excellent manager of the 'Hotel Royal,' along with my plaid and Almer's effects. Our bill was most moderate, the provisions for the day, including three bottles of wine, coming to only eight and a half francs, about one-fourth of what we should have paid at Chamouni, where the great object is, not to put up what is strictly necessary, but what will run up a bill.

At length all was ready, and at 2.0 a.m. we started,[5] Battendier being armed with a lantern, as the night was very black, and there was no moon. Making our way silently over the open grass-land that stretches from the Bellevue towards the Mont Lachat,[6] we reached the point where the ascent begins to get rapid, just as the first faint signs of dawn were appearing in the eastern sky. The long valley of Chamouni lay buried in darkness on our left, but over the Col de Balme was an exquisite tinge of light which presaged the coming day. On our right we could just make out, in the gorge below us, the great moraine-covered tongue of the Glacier de Bionnassay, whose right bank is formed by the precipices of the Mont Lachat. The ascent became very rough, and the track more and more vague, and finally disappeared altogether, when Battendier's movements, which had been for some time those of a man uncertain of his ground, became so very erratic that I at last asked him whether he had not missed the way. Now, my experience in 1863 had

taught me that along the precipitous side of the Mont Lachat there was a path, very narrow it is true, but well marked, and not difficult to traverse; but the difficulty was, to hit off the exact point where this path begins, and it was on this account we had hired our native, being conscious of our own inability to find the way in the uncertain light. As it turned out, however, we should have got on better without him, as he was now in a glorious state of doubt as to the locality of the wished-for track. I felt certain that we were much too low down, but our friend thought differently, and led us a nice dance down the steep and slippery hill-side, until I began to think we were going right down to the Bionnassay Glacier. Of course, no path was found, so up we toiled again, but not sufficiently high, and crept along the side of the hill for a short distance, as best we could. But the walking was too difficult to last; indeed, at every step we were getting more hopelessly involved; so, untaught by the former failure, Battendier again began to lead us down. But by this time my patience was exhausted, and I insisted that he should try a good deal higher up, which he, grumbling, did, with the expected result, as, after a stiff scramble, we found ourselves in the track, having lost nearly half-an-hour of precious time in the search. Once in the path, it is not easy to get out of it, except purposely, and with intent to break one's neck, as it is exceedingly narrow, while on the left the cliff rises in a wall, and on the right falls for a great depth in a similar manner. Of course, care is necessary, but there is not the slightest difficulty, and we made good progress, until by 4.0 we were at the edge of a vast expanse of stone-covered ground, which forms the upper part of Mont Lachat, having left behind us the principal difficulty to be encountered before reaching the base of the Aiguille.

A few sheep generally pick up a wretched sustenance on this dreary spot, but had not yet been driven up, fortunately for them, as there was a great deal of snow still lying about. The walking here is ordinarily easy and pleasant enough, but we found an unexpected difficulty. In the heat of the day the melting snow around gives rise to numerous shallow streams, running over and amongst the rocks. As evening advances,

these diminish in volume, but, of course, leave the rocks on each side damp with water. This had frozen in the night, and the result was a thin, and almost invisible, coating of clear, glassy ice, which rendered the greatest care necessary in placing the foot. My blind eyes did not allow me to see this at first, and, before I was warned, I got one severe fall, just on my hip-bone, of which I felt the effects for some days. All this time the Glacier de Bionnassay was an object of surpassing beauty on our right; its ice-pinnacles sparkling in the sun, and some of the more insecure ones occasionally toppling over with a crash. The lower ice-fall is hopelessly impracticable, being very shattered and steep, but the central portion of the glacier above is comparatively level, and easily traversed. Our manœuvres had enabled us to circumvent the ice-fall, and, after traversing the waste of stones before mentioned, we got on to the central plateau, just at the angle where it runs up in a sort of bay under the Aiguille du Goûter and the promontory of the Tête Rouge. The main branch of the glacier comes down in a superb cascade of séracs from between the Dôme du Goûter and the Aiguille de Bionnassay, and a highly exciting pass[7] might (or might not) be made over it to the Southern Glacier de Miage, descending by an ice-fall of a similar but even more complicated character. The Dôme du Goûter, notwithstanding its height, is almost masked by the Aiguille in front of it, and a careless observer would suppose that the ridge at the head of the glacier started from the latter peak. The Aiguille de Bionnassay is a most superb but ungraceful object, and is seen to great advantage at the point where the glacier is entered, clothed from summit to base with steep hanging glaciers.* The ice, where we took to it, was completely covered with a spotless layer of snow, concealing every crevasse (and to our no small satisfaction, as it boded well for the state of things up above), perfectly hard and firm frozen, not yielding in the least under our feet. In less than a quarter of an hour we again took to the rocks on our left, and

* The Aiguille de Bionnassay was ascended in 1865, by Messrs. Buxton, Grove, and Macdonald. They climbed the very steep glacier which covers the face of the mountain to its northern arête, and followed it to the summit, descending towards the Northern Glacier de Miage.

commenced a laborious climb up immense shattered masses, with patches of snow between them, where the axe occasionally came into use. The Tête Rouge is a promontory, jutting out from the Aiguille du Goûter, with a steep, rocky pinnacle at its northern extremity, round which we worked for some time, but at last struck straight up it, and, passing nearly over its summit, descended on the other side, and, at 5.45 A.M., were standing on the ridge at the base of the Aiguille, and halted on the spot, where, under ordinary circumstances, the ruined cabin, erected many years ago by Mons. Guichard for painting purposes, affords a rough shelter. I say under ordinary circumstances, for on the present occasion there was not a sign of the building in which last year I had taken refuge for an hour from the furious blast which then raged. In fact, it was completely covered with snow to such a depth that we might have been sitting above its walls for all we knew to the contrary, and, of course, the ridge, which is ordinarily bare of snow, was equally transformed in appearance.

As we sat on the hard snow, munching our bread and butter, we carefully scrutinised the Aiguille, which rose immediately above our heads to a height of about 2000 feet.[8] It was completely covered with snow, so much so, that the long arêtes of rock, forming the divisions between the several couloirs that seam its face, were in many places scarcely distinguishable. Curiously enough, neither Almer nor myself at all realised the effect this state of affairs was likely to have on our rate of progress. Knowing that last year, with heavily laden porters and a large party, we had taken less than two hours and a quarter to reach the summit, I thought myself liberal for now allowing two hours and a half, while Almer exultingly exclaimed, 'In two hours we shall be up there.' Had we had the slightest idea of what lay before us, our expedition would have ended there and then, so that the ancient proverb about ignorance being bliss received a new illustration. Our native was very anxious to be taken on with us, but, not having acquired a high opinion of his powers, we were deaf to his hints, and, having paid and sent him on his way, carefully roped ourselves together, leaving an interval of about fifteen feet between us, and at 6.15 set off

alone; the remainder of the rope (which was 100 feet long) being coiled round me, so as to leave Almer free for work.

A series of short zig-zags up a snow slope brought us to the edge of the great couloir, which runs from the top of the Aiguille to the crevassed Bionnassay glacier at its base. It is necessary to cross to the left side of this, as the rocks on its right side are impracticable, and the passage, under ordinary circumstances, is the only serious difficulty in the ascent of the Aiguille. The difficulty, or rather danger, arises from the fact of the couloir being the channel for falling stones, loosened from the upper part of the Aiguille, which sweep down its frozen surface with great velocity and such force that any one, struck by one of these missiles while crossing, would stand very little chance of escaping serious, if not fatal, injury. Fortunately, however, the width of the couloir is not very great, and, by biding their time, a party can get over, each man in succession, without much risk. Indeed, I believe there is no case on record of any one having been struck. At so early an hour of the morning we had not been apprehensive of danger from this source, but were certainly astonished to see on the hard snow which filled the couloir no signs of any stones having fallen this year at all, the surface of the snow being quite smooth and unfurrowed. We were still more surprised to find, instead of a well-defined channel of moderate width, an exceedingly broad curtain of snow, the rocks on each side, ordinarily bare, being completely covered so that it was hard to say where the couloir proper ended and the bounding rocks began. Almer set to work vigorously, and began cutting a way across, cautioning me to take heed to my steps. The sun had not yet reached this portion of the Aiguille, and the snow was, therefore, still very hard, but one good blow was sufficient to make a fairly secure step, so no time was lost in unnecessary polishing up. After *one hundred* steps had been made, or more than double the number usually necessary, we came to the conclusion that it was time to turn our steps upwards, and managed with some difficulty to obtain a lodgment on a patch of very slippery rocks.

In a very few minutes, we, for the first time, realised the precise nature of the piece of work we were committed to, as a

glance upwards showed us the rocks above our heads glistening with ice. Instead of a steep but tolerably easy staircase of broken rock, where it is only necessary to be careful not to knock down the loose stones, which is the ordinary condition of the Aiguille, the whole mountain was so fast bound with snow and ice that, without making strenuous exertions, we could not have loosened a single stone. We could not advance a step without first knocking the ice off the rocks with the axe, so as to make some sort of foothold, and it was scarcely ever possible to find a dry piece of rock on which we could get a secure grip with the hands, and so compensate, to a certain extent, for the insecure position of our feet. The work was extremely hard, but Almer hacked away with unflagging spirit, sparing no pains to make the way as easy for me as possible, and ever on the watch in the worst places to give me either a helping hand or a tug with the rope. We tried to keep straight up the arête, which we had first struck after crossing the great couloir, but found it so bad that Almer at last bore away to the right, and crossed a second but much smaller couloir, in hopes of finding the rocks beyond it easier. There was not, however, much difference, but we kept to them, knowing that all the ridges converge near the top of the Aiguille. We were completely in the shade, and suffered much from the cold, as a violent wind completely swept the face of the Aiguille, and almost froze the blood in our veins. I had only one glove, and as both hands had to be used for clinging on, the unprotected one became so numbed, that I was seriously afraid of its being frost bitten. As if to mock us, we could see the sun playing brilliantly on the top of the Aiguille, and gradually creeping down towards us, loosening on its way the masses of ice with which the upper rocks were covered. The result was, that we were assailed by an intermittent, but annoying, fire of lumps of ice, some of which were sufficiently large to require dodging, while, occasionally, an entire icicle shot past us with a whiz. Two hours passed, and, looking back, we saw with dismay that, instead of being on the top of the Aiguille, as we had hoped, we were scarcely half-way up, while the state of affairs higher up was equally bad with that we had found below.

At this period of the day, I, certainly, and, I believe, Almer also, had almost given up all hope of reaching the summit of Mont Blanc. We both felt that, unless we wished to sleep at the Grands Mulets, for which we had made no preparations, we should have in all probability to abandon our expedition at the Dôme du Goûter, and strike down from there to the Grand Plateau, and so reach Chamouni by night-fall. But these gloomy anticipations by no means caused us to relax our exertions. On the contrary, we worked away steadily, only pausing now and then to take a suck at some of the beautifully clear icicles with which the rocks were fringed. Throughout there was not one single foot of easy climbing, but some places were so specially bad that we had the greatest difficulty in passing. Upon these occasions, Almer always went to the full length of his tether, while I fixed myself as I best could, and made ready to bear a jerk, if called upon, until he was firm, when I, in my turn, followed. Once or twice our rope was not sufficiently long to allow of this operation being satisfactorily performed, when, of course, something had to be risked, and we were both simultaneously in positions, where one, slipping, could scarcely have failed to drag down the other. There was not much fear of Almer performing such a manœuvre, and I exerted myself to do my best. My Dauphiné experience stood me in good stead, and enabled me to grapple with the difficulties with more confidence than I had ever before experienced in such a position. The work was far too exciting to be tedious, and the hours slipped by almost unnoticed, as we clambered, crawled, and wriggled from one slippery ledge to another, looking out anxiously the whole time for the first glimpse of the little wooden cabin on the summit. We had been compelled by the necessities of the ground to bear away so much to the right that I was half afraid we might be beaten close to the top, and have to find a passage diagonally along the face of the Aiguille, in order to reach it. Our delight, therefore, was unbounded, when we suddenly caught sight of the little building, standing out in the brilliant sunshine, immediately over our heads. The sight animated us with fresh energy, and, with a yell of triumph, we attacked the last steep cliffs that lay between us and it. The struggle was severe but

short, and at 10.10 a.m. we lifted ourselves with a final effort over the brow of the cliffs, and stood upon the summit of the Aiguille du Goûter, after four hours of most severe climbing. We turned to give a last look down the way we had come, and, as we did so, Almer said, 'Not for a thousand francs, would I go down there myself alone, and nothing should induce me to take a Herr down.' Of course, he meant in the then condition of things, which, I fancy, does not occur once in twenty years.

In spite of the brilliant sunshine, there was a bitterly cold but not very violent wind blowing, which made us very glad, so soon as we had looked round at the view, to take shelter behind the cabin, while we proceeded to recruit exhausted nature. The view which we rather summarily disposed of was most striking, and we could scarcely have seen it under more favourable atmospheric conditions; the sky was perfectly cloudless, and there was nothing to mar the distinctness of the panorama. The valley of Chamouni was at our feet, but the village is not visible from the cabin itself. To see it or be seen from it, it is necessary to climb a snow slope in front of the hut.[9] But the most picturesque part of the view, is that towards the rich mountainous district that lies to the west of the Geneva road, in the direction of Annecy, where the scenery must be charming, although the mountains are comparatively insignificant. The condition of the cabin was such as to render the idea of sleeping, or rather passing a night in it, highly exhilarating. Outside it was surrounded by a framework of gigantic icicles, stretching from the eaves of the roof right down to the ground, many of them as big round as a man's arm and as clear as glass, so that the effect in the bright sunshine was most beautiful. Inside we could not see, as the door was closed, and blocked, in addition, by an immense pile of snow; but my last year's experience enabled me to form a doubtless pretty accurate idea of the state of things within.

As the bread and butter and red wine passed into our interiors, our spirits rose, and we agreed that, having come so far on our way, and overcome difficulties greater than any we were likely to encounter further on, it would never do to

abandon our original intention of going on to the summit of Mont Blanc. It was true that we were two hours later than we had hoped to be, but we should undoubtedly have time to get down to the Grands Mulets, where we should be able to exist through the night, though not very comfortably. All Almer's pride was roused, and, as he said, had we known the condition of the Aiguille, we should not have started, but, having done so, '*wir müssen auf den Mont Blanc gehen.*' I was quite as eager as himself, feeling that I might never have another chance of attacking the mountain, and, also, not being at all desirous to enter Chamouni for a second time a beaten man, and have to listen to condolences, of which the burden would be the folly of attempting such an expedition without a Chamouni guide, so at 10.40 a.m. we started over the snow-fields in the direction of the Dôme du Goûter.

Looking up from Chamouni, there appears to be a considerable depression between the Aiguille and Dôme, but this is an optical delusion, caused by the way in which the ridge between those two points circles round, the real depression being very insignificant. At so late an hour, on so bright a day we had expected to find the snow thoroughly softened, and a great impediment to rapid progress, but we were agreeably disappointed. The névé was completely covered in a remarkable way with an upper coating of what had all the appearance of frozen rain. I should have thought rain never fell at such an elevation; but, from whatever cause the effect may have arisen, this frozen surface bore our weight, and did not allow us to sink in at all. So far as the ground was tolerably level, this state of things was all very well, and helped us materially; but, when the slope became steeper, we should have preferred it yielding rather more under the feet. It was not steep enough for us to cut steps, but too steep and hard for us to get on comfortably without doing so, and the ascent was, in consequence, very toilsome, so much so, that we found it necessary to halt for a few seconds, at intervals of about ten minutes, in order to take breath. These halts, be it understood, were not in any way caused by rarefaction of the air, or any peculiar condition of the atmosphere, but simply by ordinary fatigue, the natural result

of our previous exertions and present labours. We were astonished to see how very soon we left the Aiguille de Bionnassay below us. I always imagined this to be the highest of all the Aiguilles, but it cannot be much over 13,000 feet,[10] considerably lower than the Verte and Jorasses. Our route was intersected by a few crevasses, which were dodged without difficulty or incident, except that Almer went through into one that was completely concealed by snow; but I had the rope, taut, and he recovered himself instantly. Exactly at noon we reached the top of the Dôme du Goûter, the height of which, according to the new French survey, is 4331 metres, or 14,210 English feet, that is to say, 1680 feet higher than the Aiguille du Goûter, and 1574 feet lower than Mont Blanc itself.

From here we looked down upon, and completely along, the arête connecting the Dôme with the Aiguille de Bionnassay, which is a perfect knife-edge of snow, varied by occasional patches of rock, and altogether one of the most forbidding I ever saw. I asked Almer whether he thought it would be possible to pass along it to the summit of the Aiguille, and he at first replied unhesitatingly in the negative, but, after carefully scanning it again, said that he thought it might be possible to traverse it, but that the attempt would be a 'dummheit,' in which he would be very sorry to join.[11] The summit is an exquisitely sharp snow-point, from this side one of the loveliest peaks in the Alps, and if it ever *is* reached, must be approached by the horrible arête above described. I saw the Col de Miage side last year, and from that direction the peak appears quite inaccessible.*

From the top of the Dôme, a few feet of positive descent, which was most grateful but too short, led us down into a hollow at the foot of a patch of steep rocks, which are well seen from Chamouni, and form the next step in the ascent. We reached their base and scrambled up them, finding a copious sprinkling of snow on them, but we kept rather too much to the left, and so found ourselves, on getting to the top, overlooking the plateau beyond, but cut off from it by a precipitous wall, some thirty

* See note, p. 136. The ascent there mentioned was *not* effected by the arête here described, but by the one which runs northwards towards the Mont Tricot.

or forty feet in height. The error was soon rectified by bearing away to the right, until we found an easy descent down a gentle slope of snow on to the smooth plain below. It was at this point that last year, with Morshead and some other friends, I had been driven back by violent wind and general bad weather, and forced to 'execute a strategic movement' down to the Grand Plateau, a mortifying failure which I had feared at the time never to have an opportunity of revenging. We were now at the foot of the steep slope of snow or ice which leads up to the curious projection on the ridge, to which the name of Bosse du Dromadaire properly belongs, although the name is generally applied to any point on the arête, which extends from the hollow in which we were standing to the top of Mont Blanc. There was a little soft snow at the foot of the slope, which we hoped would continue all the way up, but as we advanced it became thinner, until in the end we had to deal with the same curious hard frozen crust we had had ever since leaving the Aiguille. Almer was compelled to cut or punch steps here, so that our progress was rather slow, but rapid by comparison with what it would have been had the slope been ice, as it sometimes is. Still the angle was considerable, and a good deal of care necessary in placing the feet, as a glissade would have been, to say the least, unpleasant. The slope was broad at the bottom, and gradually narrowed as we mounted, until on reaching the top we found ourselves on a true arête, along which we evidently had to keep, until we were on the summit of the mountain itself which was seen in front, slightly to the left, in apparent but most deceptive proximity, and no very great height above us.

The arête is rather narrow, but its passage presents not the slightest difficulty to a person blessed with an ordinarily good head, though, of course, it is not a place to lark on. There was a rather violent and intensely cold wind blowing, to the full force of which we were exposed, and, to prevent my ungloved left hand being frost-bitten, I was compelled to keep it in my pocket, which I certainly could not have done if our route had not been so free from difficulty. The views all along were delicious. On our left we looked across the Grand Plateau and Corridor to the range of the Aiguille du Midi, Mont Blanc du

Tacul, and the Mont Maudit, behind which the Aiguille Verte towered, certainly the most elegant summit in the district. We looked at it with especial interest, knowing that Reilly and Whymper were preparing a grand attack on its hitherto impregnable buttresses, but we did not think the appearance of the peak boded well for their success, as it was covered with so much snow, that we could not help suspecting that its rocks, reported very hard at the best of times, would be found so glazed with ice as to be altogether inaccessible.* Beyond the limits of what may be called the Mont Blanc district, our eyes were greeted by range upon range of the Bernese and Valaisan Alps, but most of them so dwarfed as not to be individually distinguishable. On our right, a very long and steep snow slope fell to a considerable field of névé, which, lower down, was split into several branches by ridges of rock, rising from the still lower level of the Southern Miage Glacier. Between the point where the névé curled abruptly over and the surface of the Glacier de Miage we could see nothing, but we knew that the intervening space was occupied by three extensive tributary glaciers, falling to the main stream below, very steep and broken, separated from each other by the aforesaid ridges of rock. We had carefully examined these glaciers last year while crossing the Col de Miage, and had then come to the conclusion that it would probably be not impossible to get up one at least of them, although the enterprise would be one of great difficulty, and no small danger from avalanches. But from below we had been unable to see what lay between their upper parts and the ridge of the Bosse, and had imagined that, even if we could ascend to the highest point visible, we should be then brought to a full stop. Almer agreed with me, however, that in a snowy year, and with the snow in good order, it might be possible to ascend the slope down which we now looked, if once a way were found to the field of névé at its base, and that it would be well worth while for some one, in a favourable season, to make a very early start from the chalets of Miage, and see what could be

* No serious attack was made on the Aiguille Verte in 1864; but in the following year the peak was ascended, first by Mr. Whymper, and later by other parties, from the direction of the Jardin.

done in this direction. The great Glacier de Miage lay extended at full length below us, and we could trace the whole of our last year's route over the Col de Miage, the summit of which was now more than 4000 feet beneath us.

I was greatly surprised at the immense length of the arête of the Bosse. I had always imagined that, so soon as the first hump was passed, the summit was quickly won, but never was there a greater mistake. Point after point was scaled, each of which in succession we imagined to be the highest, but the result in every instance was a sore disappointment and trial of our patience. The general angle was very trifling after the first steep slope was surmounted, but there came an occasional steep bit where the axe was required. The whole route, however, is singularly little toilsome, and, but for the intense cold of the wind, we should have been in a contented frame of mind. Almer still led vigorously onwards, but I was lapsing into an apathetic state at the absence of any sign of an early result to our labours, when, after passing one of the deceptive snow eminences, he suddenly exclaimed, 'Dort ist die Spitze.' My torpor instantly vanished, as I looked along the level ridge and saw a slight protuberance at its further extremity. We hurriedly pressed along the small intervening distance, and, at 3.5 p.m., two proud and happy men grasped each other's hands on the summit of Mont Blanc.

We had been rather more than thirteen hours from the Bellevue, of which twelve hours had been actual walking, but, under ordinary circumstances, the distance might be accomplished in certainly two hours less time, as we were detained quite that on the Aiguille du Goûter. The sky was still cloudless, and the atmosphere retained the marvellous clearness by which it had been characterised all day. We, therefore, saw the view under such favourable circumstances as fall to the lot of few, yet I turned away convinced that the panorama is inferior in interest to almost all that I have seen in the Alps. Its vastness must always be impressive, but it is this very quality which robs it of charm. The Bernese, Pennine, Graian, and Dauphiné Alps were around us, yet, in all those mighty ranges, there was not one single group, except, perhaps, that of Monte Rosa, which

arrested the eye in its search for something on which to fix itself. All are completely dwarfed and reduced to insignificance even those in comparative proximity. The great peaks of the Grand Paradis and Grivola, amongst the Graians, were with difficulty picked out from the common throng, while the Aiguille de Trélatête and the Aiguille du Glacier, still nearer at hand, were absolutely undistinguishable. The summit of Mont Blanc is a long ridge, which drops on the south to a great plateau of névé, extending as far as the brow of the precipices impending over the Allée Blanche. At the further side of this rises the Mont Brouillard, which, from it, is probably accessible without much difficulty, and would be worth the attention of any one starting in the morning from the cabin on the Aiguille du Goûter. Even if time had not pressed, the bitterly cold wind would have prevented a long halt. Accordingly, at 3.10 p.m. we left the summit, on which, since the first ascent of Jacques Balmat and Dr. Paccard, I believe so small a company had never stood, and commenced the descent towards Chamouni, the indefatigable Almer still leading with as much energy as if we had not already done a fairly hard day's work.

The final dome of the mountain, or 'Calotte,' as it is ordinarily termed, is both long and steep, and here we found the peculiar condition of the snow before alluded to a positive impediment to progress. It was almost impossible to preserve our footing without cutting steps, a most cruel expenditure of time, and, in spite of every precaution, I once fairly lost my legs, but was, of course, soon stopped in my glissade. At the base of the Calotte is a small plateau, and, crossing this, we bore rather to the right, and found ourselves looking down upon a broad snow-trough, on the other side of which rose the Mont Maudit. This snow-trough was the so-called Corridor, and we were looking down the famous Mur de la Côte, by which alone it could be reached. I had been prepared to find in this famous wall, the ancient bugbear of all who ascended Mont Blanc, an ordinary steep slope, but I was not prepared to find its descent so simple a piece of business as it proved to be. We descended right along the edge overhanging the Glacier de Brenva, and although I had *not* expected a 'fathomless abyss,' I *had* expected in this direc-

tion a very considerable precipice, down which it would not be expedient to cast *too* admiring glances. But I was completely astounded to see the trifling depth at which the upper névé of the Brenva Glacier appeared to lie below the Mur, and was at once led firmly to believe what I had before doubted, viz., the accessibility of Mont Blanc from that side, if the head of the glacier can only be reached from Courmayeur.* I can understand the ascent or descent of the Mur being a rather long business when it is ice instead of hard snow, as we found it, but I cannot imagine that any one, at all accustomed to mountain work, could experience the slightest feeling of nervousness when engaged in either operation. But Almer is not the man to neglect a precaution, or allow his watchful care of his 'Herrschaft' to sleep, even in straightforward places. Turning his face to the slope, he kicked the steps for himself, and then improved them with his axe for me, while I followed in the usual way, face in front, but keeping close up to him, so that as fast as each step was ready, I lowered myself into it. In this way we descended with great regularity and steadiness, though, of course, not very rapidly, until the foot of the Mur was gained. We dropped over a small bergschrund, and at 4.20 landed at the head of the Corridor, on the Col above the Glacier de Brenva, between the summit of Mont Blanc and the Mont Maudit.

We had hoped here to be in shelter, and able to take some much-needed food, but the wind pursued us in the most inveterate way, and, sweeping up the Corridor, annoyed us almost as much as it had done higher up, so that the cold was still too severe for us to be able to halt in comfort, and we, therefore, postponed our meal to a more propitious moment. Hurrying along the level surface of the Corridor, we soon reached the brow of the abrupt descent on to the Grand Plateau, which lay extended at our feet, and here, for the first time during the day, we hesitated as to the correct line of route, Almer having, I believe, only once gone over the ground before. We first steered to the extreme left, and progressed a short way down the slope, until it curled over in front in an ominous way, betokening

* In the following year, with Messrs. F. and H. Walker and G. S. Mathews, I had the pleasure of demonstrating the correctness of this opinion [see Chapter xvi].

either ice-cliffs or rocks below. We went down as far as possible, and Almer craned over to try and make out what lay beneath, but he could see nothing, so we retreated, feeling tolerably sure that there at least was not the right way. We now worked to the right, and shortly turned down again, but, as before, were soon arrested by a precipice, and had to retrace our steps. Half measures were evidently of no avail, so we now bore well away to the right, until we were so close under the Mont Maudit that we could go no further, when we once again turned our steps downwards, and this time with a more favourable result. The snow-slope down which we passed diagonally to the left, was certainly steeper than the Mur de la Côte, but equally free from difficulty, as the footing was very good, and there was not a sign of the great crevasse which is usually found near the bottom, and forms one of the recognised difficulties of the ascent from Chamouni. We were soon on the Grand Plateau, and at once saw that we had hit upon the proper line of descent, the Corridor being upheld on the left by a wall of rocks, and in the centre by ice-cliffs.

Advancing across the Plateau until we had passed some avalanche débris, the presence of which showed that the aforesaid ice-cliffs were not very firm in their position, we then halted, at 5.0 p.m., to take the first refreshment we had had since leaving the Aiguille du Goûter seven hours before. The scene from this point struck me as being the finest on the Chamouni side of the mountain, and the vast level field of spotless névé, surrounded on all sides save one (towards the Grands Mulets) by huge cliffs of ice and snow, seen under a cloudless sky on a glorious evening, has remained impressed on my mind as one of the most sublime spectacles I have ever witnessed in the Alps. Indeed, in the European Alps I fancy there is no other site where the *ice* scenery is on so grand a scale; certainly there is nothing in the Zermatt district to compare with it, not even the great plateau at the head of the Monte Rosa Glacier. The wind had now fallen, and the temperature was agreeable, so that I could have sat, silently admiring the glories around me, for a long time; but we were reminded that our work was not yet done, and of the elevation at which we still were, by seeing the top

of the Aiguille du Midi, itself 12,822 feet in height, considerably below us.

Accordingly, at 5.25, after a moderate repast, we resumed our passage of the plateau, bearing towards the base of the Dôme du Goûter, but working gently downwards, so as not to lose ground unnecessarily. So soon as we were well across, we turned sharp to the right, and commenced the descent of the first great snow-steps between the Plateau and the Grands Mulets, which were just visible a long way below us. Last year I had been able to get over this portion of the route very rapidly in a series of glissades, and I had naturally been looking forward to a repetition of the operation; but, although at a much earlier period of the season, the glacier was now in a very different condition from what it had then been. The slopes were intersected by numerous huge chasms, which we had before found either altogether closed or securely covered with snow, and these necessitated such a constant winding about and dodging, that we had never a clear run for any considerable distance. Upon one occasion we were considerably bothered by a monstrous gulf running almost across the glacier, and we finally had to pass along its upper edge from one end to the other before we could find a way over. In addition, our progress was now materially impeded by an enemy who had been singularly complaisant to us during the day—soft snow; and I must say that what we now underwent from this source completely banished from our recollections our previous unexampled good fortune. At every step we went in almost up to our middles, and the fact of Almer going first saved me very little, as he simply made deep holes, into which I sunk still deeper, principally owing to the width of the steps apart, which was so great that a sort of spring was required to get from one to the other. But, even had they been made shorter, the result would, perhaps, not have been very different, and time was so precious that Almer naturally and properly did his best to cover as much ground as possible at every stride. In spite, however, of all difficulties, we progressed rapidly, and by 6.30 were abreast of the rocks of the Grands Mulets, the cabin on which did not look sufficiently tempting to invite a visit, so that we passed on without halting.

We looked anxiously out for the tracks of the party of guides who were reported to have been up to the Mulets, and soon hit upon them, but they had melted away in so many places, that, on the whole, they did not serve us much. Fortunately, the glacier was in such remarkably good order, that we had no difficulty in finding our way. The passage of the junction of the Glacier de Taconnaz with that of Les Bossons, ordinarily so complicated, was perfectly easy and straightforward in consequence of the enormous quantity of snow. We had occasionally to retrace our steps, but never went far astray, and, as the snow was not so soft as it had been higher up, this part of the day's work was rapid and pleasant, and we were soon on the Glacier des Bossons proper, where we congratulated ourselves on having left behind us the last point where difficulty was to be apprehended. The ice scenery on the Bossons was as fine as usual, the glacier being split into towers and pinnacles of the most fantastic shapes, through which we wound without trouble, keeping a sharp look-out for a clear pool of water, with which, when found, we took our revenge for our enforced abstinence since leaving the Bellevue. Approaching the right bank of the glacier, just under a couloir of the Aiguille du Midi, which is in the habit of playfully sending down showers of stones, we were fairly puzzled how to get off the ice, an operation which could not possibly be performed at the point we had struck. We could not dawdle where we were, as, to judge from the state of the ice, which was thickly dotted with stones, the couloir appeared to have been in a particularly lively humour, so we diverged a little towards the centre of the glacier, and managed to stumble upon the missing track, which led us through the labyrinth, and landed us at 7.30 p.m. on *terra firma*.

The light was failing fast, and it was of such consequence for us to traverse the very rough ground over which the track passes until it reaches the chalet at the 'Pierre Pointue,' before it was quite dark, that we did not even halt to take off the rope, but hurried on, just as we were, as rapidly as possible. In broad daylight the track is not a pleasant one—passing along the side of a precipitous ravine—and in the dusk it was specially repulsive. Nevertheless, I managed to get along pretty well, with

the exception of making the trifling mistake of jumping into, instead of over, a torrent, and we walked, slipped, and stumbled along, until, on rounding a sharp corner, we caught sight of the welcome chalet, and at 8.20 knocked at its closed door. Our summons was soon answered by a solitary young woman, who, seeing two strangers at such an hour, naturally inquired where we came from. Had we answered 'from Heaven,' or its antipodes, it would not have created more astonishment than did our simple reply of 'from Mont Blanc.' She was, at first, apparently stupefied with amazement, and then broke out into a torrent of 'Mon Dieu's,' etc., which was only checked by our demand for wine, which we did not in the least want, and merely ordered for the good of the house. When we were ready to start again, the young woman very good-naturedly offered us a lantern, which we at first declined, but, seeing the darkness of the night, subsequently accepted. It was lit, we wished our friend good night, and at 8.30 set off in high spirits along the mule path, which was said to run uninterruptedly to Chamouni.

We soon entered the forest clothing the side of the mountain, through which the path descends by rapid zig-zags, and were immediately involved in the most inky blackness, which the lantern scarcely penetrated at all with its feeble rays. The path itself is not bad, but, as Almer facetiously observed, would have been better if it had not been three-fourths mud and the remaining fourth water, the result being that every now and then we went in with a squash almost up to our knees. In due course we reached a point where last year I had missed the path, and, in default, had taken a steep short cut down a grass slope, which had answered equally well. We now again lost the path, but, as the short cut was not available in the dark, were compelled to discover it again, which we did, after some trouble, and again progressed rapidly. By 9.30 we guessed that we were not far from the bottom of the forest, and were beginning to indulge in all sorts of delicious anticipations, of which champagne, a hot supper, and a comfortable bed formed the principal items, when the track which we had been following became very vague, and finally died away altogether, while, at the same time, our lantern, which had already shown signs of indisposition, threatened a

total collapse, and became almost useless. We pushed on in our former direction, but, finding that it appeared to be leading us away from Chamouni, we halted, undecided what to do, and, after a few minutes' consideration, turned in hopes of finding the lost track,—a fatal error, to which I impute all our subsequent misfortunes, as, had we pushed steadily on, I believe we should have extricated ourselves before we got confused. We never even got back into our original vague track, and the dismal fact gradually dawned upon us that we were completely lost, and that our comfortable beds were likely to be represented by the hard earth, and our hot supper by the scanty remains of our provisions. We did not, however, despair, but hunted about vigorously for some sort of path, and were constantly deluded into following what, by the flickering light of our lantern, looked like the tracks of human feet, which only led us deeper into the darkness of the wood, without bringing us nearer our goal. Once my hopes were raised by our coming to what I knew was the torrent from the Cascade du Dard, which had to be crossed somewhere. But it was impossible to do so at the point we had struck, and the bank was so steep and overgrown with brushwood that we could not force a passage along it in either direction, at least in such darkness as that by which we were encompassed. We endeavoured to keep as near the course of the stream as possible, but were driven further and further away from it by the nature of the ground, and never came upon it again. Every now and then we stood still and shouted at the tops of our voices, in faint hope of being, without knowing it, in the vicinity of human beings or habitations; but our cries were unanswered, and my thoughts became more and more devoted to the finding a convenient spot for a bivouac, the necessity of which, however, Almer was still loth to admit. I was anxious for him to leave me in the wood, where I was in no fear of molestation from man or beast, and endeavour to force his way out alone; but he would not hear of such a thing, and it was at last settled that we should together make a final desperate effort to extricate ourselves, by keeping straight on in the direction where we supposed the valley to be, turning neither to the right nor left. But it was just this straight course that we were unable

to preserve. We were perpetually compelled to abandon it until we found ourselves wandering, as I believed, in a circle as hopelessly as ever.

Looking at my watch, I found that it was 11.30 p.m., so I suggested that, having been on foot for twenty-one and a half hours, we might as well pass the brief remainder of the night in a recumbent position, instead of continuing our manœuvres of the last two hours till daylight, with, probably, no better result than had attended them hitherto. Almer agreed, so we sat ourselves down under a clump of trees where the ground was sufficiently open for us to lie at full length. Personally, the feeling of annoyance and irritation which had possessed me at the commencement of our wanderings had long since vanished, and my predominant feeling was now one of intense amusement at the idea of our being thus baffled, within a stone's throw, so to speak, of our destination; but poor Almer almost cried with vexation, and for a long time refused to be comforted. He insisted that our misfortune was all his fault, an absurd idea, of which I did my best to dispossess him; by emitting small jokes, digging him in the ribs, and otherwise assuming an air of excessive cheerfulness, which I was far from feeling, I succeeded in somewhat restoring his equanimity, and he at last appeared to appreciate the absurdity of the situation. We made a frugal supper off some very dry prunes, and then buttoned up our coats, tied our hats over our ears, and stretched ourselves side by side on the hard earth to 'woo the drowsy god,' who soon responded to Almer's appeals, but was for a long time not equally obliging to me. However, he relented at last, and I lapsed into a state of oblivion.

Sunday, 3rd July.—Although the night was fine and not really cold, yet the total absence of any covering after so much bodily exertion made me very chilly, and I woke several times with a shiver, and each time experienced a feeling of disappointment that there were yet no signs of day. At length, at 2.40 a.m., we woke for good, and, finding that there was sufficient light, shook ourselves preparatory to resuming our labours. Almer went a few paces forward to look about him, and suddenly emitted a howl, which made me jump and join him. He pointed with his finger, and there, not a hundred yards from

the spot where we had thrown ourselves after two hours' fruitless search, was the broad path for which we had hunted, so that had we persevered for two minutes longer we could scarcely have failed to hit upon it. We scarcely knew whether to be most annoyed or amused at the discovery, but the latter feeling finally prevailed, and we laughed till the forest echoed with our mirth. There was no further delay, and at 2.50 we started along the perfectly level track, which brought us at 3.15 to the door of the Hotel Royal at Chamouni, where it seemed at first as if we should have to remain some time, as my vigorous pulls at the bell were unanswered. But I had no fancy for a second bivouac on the door-step, so made my way round to the side-door, leading into the garden, by clattering at which I at last succeeded in attracting the attention of the porter, who speedily admitted us within the hospitable walls. I immediately went off to bed, not seeing any particular fun in keeping watch until the other inmates were on the move, but Almer did nothing of the sort, considering that such a course would be an admission of fatigue, of which he was determined the natives should not have an excuse for accusing him.

My slumbers were none the less sound for the preliminary snooze I had had in the forest, and I slept more or less continuously till 10.15, when, knowing that everybody would be safe in church, I got up, dressed, and went downstairs, when I was immediately rushed at by my two old friends, the black-bearded manager of the Hotel and the head waiter. One caught hold of my right hand, and the other of my left, and, between them, they simultaneously worked the pump-handle motion with such effect that I was at last obliged to cry for mercy. The first hearty greetings over, I heard with no small satisfaction that, my note having been received, a careful look-out had been kept all day, and we had been seen on the summit, so that there was no opportunity for cavillers to cast doubts upon our success. We had again been seen near the Grands Mulets, and a large party of the villagers had gone out as far as Les Pèlerins to meet us, and had remained there till past eleven o'clock, unable to account for our non-arrival, as our lantern had been seen in the upper part of the forest. They were also said to have lit a large fire, and

shouted to guide us, but we neither saw the one nor heard the sound of the other. After church Whymper came in, much to my satisfaction, as we were the only two persons with mountaineering proclivities in the house, the other visitors being either very mild, inquiring whether 'I had not found the mountain very difficult, and been very much afraid,' or else highly offensive, evidently looking upon us as unclean beasts, with whom contact was to be avoided, because our garments and general appearance were not strictly *en règle*. Almer was invisible all day, but I was told that he had been seen in the morning surrounded by an admiring throng, with whom he was unable to communicate, and who, therefore, had to be contented with staring at him, as if he had been some extraordinary animal. The ascent certainly created great excitement in the place, partly on account of the unusual manner in which it had been accomplished, and partly because it was the first of the year. In their delight at the mountain thus, as it were, being proclaimed open, the good people forgot the severe blow which had been dealt at their principal sources of profit, and even looked with friendly eyes on Almer, who, under other circumstances, would have been certainly scouted as an audacious and obnoxious interloper. Personally, I never before appreciated the exquisite misery of being a (temporarily) distinguished character. It was bad enough to be stared and pointed at whenever I chanced to set foot out of doors, but my horror may be imagined when at the *table d'hôte* I was forced to take the head of the table, to the exclusion of all the 'potent, grave, and reverend Signiors' present, a bouquet being placed in front of my plate, and my napkin arranged in a wonderful way, that must have taken some hours to manage. After dinner there was more firing of cannon in honour of the event, and after that I was left in peace for the remainder of the evening. All day the weather had been rather unsettled, and in the evening a thunder-cloud swept up the valley, and perched itself on the Brevent, threatening to burst right over us, but, although there were some claps of thunder and heavy rain-fall, the main body of the storm passed on, working round towards the Col du Géant, on the Italian side of which, as we afterwards heard, it raged with great violence.

NOTES TO CHAPTER VI

[1] The actual height of the pass is 7668 feet. It is, as Moore's account indicates, entirely uninteresting, both in itself and in the views it commands. The most pleasant way of getting from St. Michel to Chamonix is now probably to take train to Albertville and thence to walk or drive *viâ* Flumet and the Mont Joli, to Sallenches or St. Gervais.

[2] These two passes form a portion of the southern end of the *Tour de Mont Blanc*, as Moore mentions further on. Of this tour there are, of course, many descriptions, but none are so thoroughly readable as that of Forbes. It will be found in chapter ix. of his large book, *Travels through the Alps of Savoy*; but in 1855 he republished this chapter, with others, in a single small volume, *The Tour of Mont Blanc*, which is sometimes to be noticed in old book catalogues, and is well worth possessing at a much higher price than is usually asked for it. His large work has just been republished, edited by Mr. Coolidge.

[3] The central and highest point of the Aiguilles de Trélatête (12,901 feet) was climbed for the first time by Mr. Whymper and Mr. Adams-Reilly in July 1864, a week after the attempt on the Aiguille d'Argentière, described in chapter vii. (*Scrambles*, p. 242).

On the 23rd July 1870, Moore and Horace Walker, with Melchior Anderegg, made the first ascent of the northern summit (12,809 feet). The route for a long distance lay up the Glacier de Trélatête, from West to East. Moore writes in his Journal :—'The view from here was very fine. In front the névé stretched away with a gradual and uniform slope for an apparently long distance to a well-marked Col, to the south of which the ridge rose in graceful curves to a remarkably imposing snow-peak, which I, although somewhat unprepared for its size, imagined to be the northern Aiguille de Trélatête, the object of our expedition. Walker did not agree with me on this point, and considered that a nearer and much less pretentious peak was more likely to be our Aiguille ; but there was no difference of opinion as to the eligibility of the Col for a breakfast-place, when we should come to it. . . . Here were some magnificent névé crevasses, but they were passed without difficulty, and we were making straight running for the seeming Col at the head of the snow-field—which, however, began to strike us as being further off than we had thought—when suddenly, without the slightest warning, the snow in front of us curled steeply over, and we were brought up short at the brink of a precipice of several thousand feet above a great glacier flowing towards the Allée Blanche.

'It was for some minutes difficult for us to realise our position, or to understand the astounding optical delusion of which we had been victims for the past two hours. The imposing snow-peak was Mont Blanc itself; the Col, where we were to breakfast—that between the Aiguille and Dôme du Goûter—was separated from us by the whole breadth of the Miage Glacier on to which we were looking. We were actually standing [on the Col 'dit infranchissable' of the French map, 11,080 feet] at the head of the Trélatête Glacier, in a deep depression between

the Aiguilles of Trélatête and Miage, with which the snows of the Dôme du Goûter and Mont Blanc had appeared to be in absolute connection, though really distant several miles and on the other side of a broad and deep glacier valley.'

[4] See the sketch map, p. 133, and the description of the view which heads this chapter.

[5] The history of the ascent of Mont Blanc has been told so often, and well retold so lately, that it need not be dealt with here. The most complete recent account of Mont Blanc, from the climber's point of view, is Mr. C. E. Mathews's *Annals of Mont Blanc* (London, 1898). Mr. Whymper's *Chamonix and the Range of Mont Blanc* (London, 1896) gives the main outlines of the story in a readable form, while the new edition of Ball's *Alpine Guide* (London, 1898), issued under the auspices of the Alpine Club, deals with the matter from the general traveller's point of view, not only as to the ascent of the mountain, but as to both climbing and travelling in its neighbourhood. From the purely mountaineering point of view the volume of the Climbers' Guides, entitled *The Chain of Mont Blanc*, by Louis Kurz, translated by Mr. Coolidge, is of course the most complete source of information.

The mountain was first ascended from the St. Gervais side in 1855 by the Revs. C. Hudson, Christopher and Grenville Smyth, C. Ainslie, and Mr. E. S. Kennedy, without guides. (See Hudson and Kennedy's book, *Where there's a Will there's a Way*, published in 1856, and still appearing sometimes in old book catalogues.) Mr. Kennedy became a President of the Alpine Club in 1860; Mr. Hudson was killed in the accident on the first ascent of the Matterhorn in 1865. This ascent coincided with Moore's—in general route—only as far as the Dôme. The Hudson and Kennedy party looked at the arête from the Dôme to the summit but thought better of it, descended to the Grand Plateau, and completed the ascent by the Corridor and Mur de la Côte, which was then the usual way. In 1859, however, Mr. Hudson, with two other climbers, and also with Melchior Anderegg, F. Couttet, and others, reached the Dôme from the Grands Mulets and Grand Plateau, and traversed the ridge over the Bosses to the summit—which they had left alone four years previously—for the first time. Finally, Mr. Leslie Stephen and Mr. F. F. Tuckett, with Anderegg, Bennen, and Peter Perren, made the first complete ascent by the St. Gervais side of the mountain (the route taken by Moore in 1864) in 1861.

At present the most common tourist route is practically the 1859 route referred to above. Starting from Chamonix, a night is generally spent at the Grands Mulets, and then the Dôme ridge is reached up snow slopes from the Grand Plateau and followed—over the Bosses du Dromadaire—to the summit. The route which is probably most popular with mountaineers starts from Courmayeur, at the Italian base of the mountain. A bivouac is made at a hut on the rocks of the Aiguilles Grises, and the ascent to the final ridge made by the Glacier du Dôme, which falls southward from the Dôme itself to the Italian Glacier de Miage. This is, oddly enough, the very route indicated by Moore on p. 145. Moore himself made this ascent in 1873, and extracts from his Journal referring to this expedition are given below in chapter xix.

The *Climbers' Guide* describes eleven different routes up Mont Blanc, three starting from Chamonix, two from St. Gervais, and six from Courmayeur, besides numerous variations. One of the most difficult and least taken, but finest, of the latter is the Brenva route, described in an appendix to Moore's original Journal, and included in this reprint as chapter xvi.

[6] 'Mont Lachat' is the name given to the highest point of the grass ridge extending immediately to the south-eastward of the Pavillon (see sketch map). The Tête Rousse, mentioned further on, is a point (10,299 feet) at the western end of a ridge extending from the Aiguille du Goûter, between the Glaciers de la Griaz and de Bionnassay. On the sketch map it lies just over the letter B of the word Bionnassay.

[7] This pass is marked on Imfeld's map as the Col de Bionnassay. It has never been crossed, although the ridge has been traversed from end to end. (See note 11 below.)

[8] The difference in height between the Aiguille du Goûter and the Tête Rousse is 2316 feet, and the difficulty of the climb is sufficiently shown when it is noted that this part of the ascent occupied practically four hours of continuous going.

[9] There is now a hut of a more habitable description a little above the Dôme, as well as the Vallot Observatory. An old hut, in bad order, still remains near the top of the Aiguille du Goûter.

[10] The ascertained height of the points here mentioned (and some others) are as follow :—

Aiguille du Goûter, .	12,615 feet.	Col de la Brenva (Head of 'Corridor'), . .	14,112 feet.
Aiguille de Bionnassay, .	13,324 „	Aiguille du Midi, . .	12,609 „
Dôme du Goûter, . .	14,210 „	Grandes Jorasses, . .	13,800 „
Grands Mulets, . .	9905 „	Mont Maudit, . .	14,669 „
Grand Plateau, (about)	12,900 „	Mont Blanc, . . .	15,781 „
Aiguille Verte, . .	13,541 „		

[11] The snow ridge between the Aiguille de Bionnassay and the Dôme du Goûter—'a perfect knife-edge'—was not traversed until 1888, when Miss Katharine Richardson (with Emil Rey and J. B. Bich) descended the Aiguille by this route, having ascended (for the first time) by the south arête. The distance between the two summits took two hours and a half to traverse.

CHAPTER VII

THE COL DU CHARDONNET

Monday, 4th July.—I got up at 8.0 this morning, and found a fine but rather blowy day after the rain, which, however, we both passed in a state of delicious idleness. I could not have done anything even had I been inclined, as my boots were *hors de combat*, and under repair; but, after a fortnight of incessant hard and rough work, a short interval of absolute repose was almost essential, and, at any rate, very welcome. As usual on a Monday, there was a general clear-out of all the people in the Hotel, and we were left pretty much to ourselves, but, what with reading, writing, and the consumption of strawberries and cream, did not find the time heavy on our hands. Early in the afternoon Reilly arrived from Courmayeur over the Col du Géant, the ice-fall of which he had found in a ludicrously easy condition. He was stopping at the 'Londres,' but came over to dine with us, and it was arranged that we should all three sleep to-morrow at the Chalets of Lognan, with a view of attacking the virgin Aiguille d'Argentière on the following day. The

Aiguille was supposed to be accessible from the Col between it and the Chardonnet, leading down to Orsières, a very convenient thing for me, as I was bound to that place *en route* to Evolena, where I hoped to meet Morshead on Saturday, the 9th instant.

Tuesday, 5th July.—Two parties started for Mont Blanc this morning under a cloudless sky, but there was a violent wind raging in the upper regions, which, I thought, might bother them unless it subsided before the morrow. I had enough to do arranging my baggage, all of which I sent off by post to Zermatt, where I calculated that it would arrive a day or so before I did myself. I kept next to nothing with me, experience having by this time taught me how little is really required when on the march. We dined early, with Reilly, at the 'Londres,' and then finished our preparations, which, with the packing and arranging the provisions, took so much time, that it was 2.55 p.m. before we bade farewell to Chamouni, and even then we left our three men, Croz, Couttet Baguette, whom Reilly had engaged, and Almer, to follow us.

As far as the little village of Les Tines, our route lay along the good but rather dusty Char road, but, on reaching that place at 3.45, we turned off to the right into the fields, in order to strike the path leading up to the Chapeau. But there were no signs of our men, so we threw ourselves down under a shady clump of trees to await their appearance. They were soon seen coming along the road, but turned into the little 'auberge,' and there remained. It was very hot and our position was a pleasant one, so we sat still, and allowed ourselves to be cross-examined and inspected by a small female child, who was waylaying unlucky tourists from the Chapeau with the usual collection of crystals. She first expressed a desire to act as our guide up to the Chapeau, where we were not going, and then offered us each of her crystals separately, at a price ten times its value, but, finding us inexorable, proceeded to pass her observations on our personal appearance. She was specially enamoured of Reilly's legs, which, it must be confessed, in knickerbockers and most gorgeous stockings, presented a highly fascinating appearance, and then expressed her opinion that I was older than Whymper,

an erroneous conclusion to which she came after a careful comparison of the relative amount of stubble—which she was pleased to dignify by the appellation of 'barbe'—visible on our respective chins. In spite of the amusement thus afforded, our patience was at last exhausted, so, making use of our small friend to carry a message to the guides to the effect that we were going, we resumed our way at 4.15.

This move had the desired effect, as they quickly followed us, and the united party was soon busy, laboriously toiling up the steep but excellent mule path, carried in zig-zags along the hill side. The exertion on a broiling afternoon so soon after dinner was rather severe, so our progress was not very rapid, and our momentary halts 'to admire the scenery' were numerous. It would, indeed, have been a pity to hurry over such a charming path. It wound through a luxuriant pine-wood, gaps in which here and there disclosed lovely peeps of the great sea of séracs of the Glacier des Bois, backed in the far distance by a portion of the grand wall of the Jorasses, and nearer at hand by the wonderful-pointed crags of the Charmoz, and Aiguille de Blaitière. Slightly above the first steep ascent, we diverged from the Chapeau route, leaving it on our right, and bore well away to the left, along a track the comparative roughness of which showed that we had again left the ordinary routes of tourists. Nothing could have been more agreeable than our onward walk through the forest. The way had ceased to be steep, and we had perspired away the effect of our dinners, so we wandered along, getting good views of the long valley below, until we finally emerged at 5.35 on to an open expanse of pastures, in the centre of which appeared the exceedingly dirty chalets of La Pendant. We should get no milk higher up, so determined to have a good draught while we could, and gave the necessary directions to the herdsmen, who were as filthy-looking specimens of their class as I ever saw. Bowls of cream soon made their appearance, and the contents disappeared with a rapidity that to the uninitiated would have been alarming, the guides appearing to have quite as keen a perception of the merits of the liquid as ourselves. The situation of the chalets is charming, commanding a fine view of the valley below, and the bold craggy range of the

Aiguilles Rouges on the opposite side, but the accommodation appeared to be most wretched, and we congratulated ourselves that our quarters lay higher up. At 5.45 we started off again, and, although we did not appear to be rising much, the increasing scantiness of the woods and roughness of the ground showed that our elevation was increasing. We still followed the same direction along the side of the hill, gradually working round the base of the Aiguille Verte, and passing under the end of two small glaciers, those of La Pendant and Lognan, which come down from one of the buttresses of that peak. They both appeared to have diminished much of late years, scarcely anything being visible but a narrow tongue of ice, surrounded by vast tracks of moraine and débris. After crossing the remarkably dirty torrent from the Glacier de Lognan, we came at 6.40 p.m. upon our destined night-quarters, the lower chalets of Lognan, situated on rising ground a short distance from the left bank of the Glacier d'Argentière.[1]

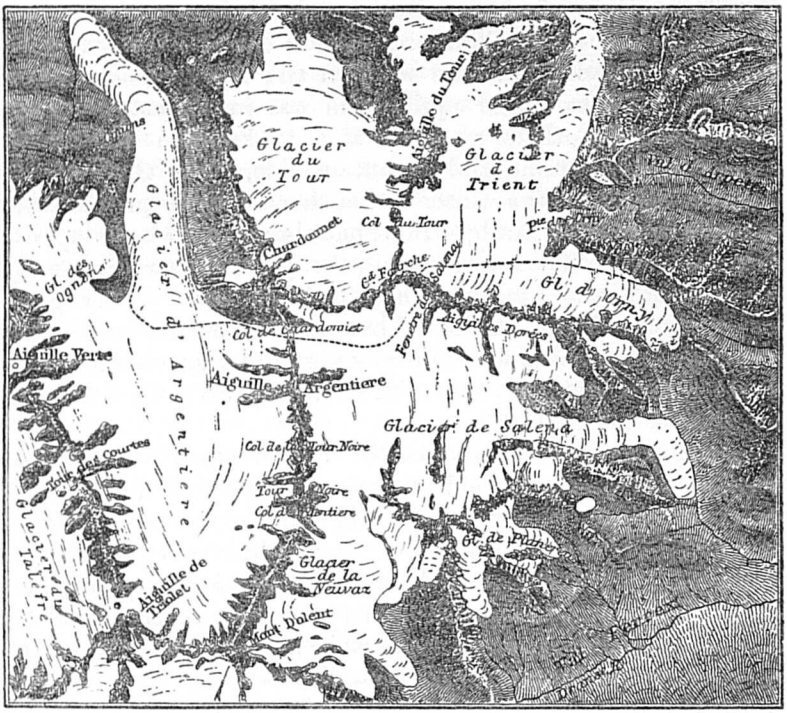
There was some talk about going on to the higher chalet further on, but, as the place was understood to be an awful den, it was considered that the saving of half-an-hour's time in the morning would be dearly bought at the cost of a probably sleepless night, so we very wisely resolved to remain where we were. The view of the valley is, of course, not materially different from that from La Pendant, but in other directions there are several important objects visible, which are not seen from the lower station. First and foremost, immediately over our heads towered the Aiguille Verte, looking accessible with the greatest ease from our position. But this apparent accessibility is a delusion and a snare, the chalets being so directly under the mountain that it is impossible from them to grasp its real form and height, and, in fact, there is not the slightest chance of attacking the peak with success from this direction. Looking across the Glacier d'Argentière, the steep and rugged range that forms its right bank was visible from above the village of Argentière to the Aiguille of the same name. The appearance of the Aiguille d'Argentière is from hence most disappointing: indeed, any one not specially on the look-out for it, would certainly pass unnoticed the ungraceful tooth projecting from the ridge, which is all that

apparently represents one of the most considerable of the famous Chamouni Aiguilles. The nearer peak of the Chardonnet, on the other hand, though lower than its neighbour, is a superb object, a grand, towering mass of cliff, which, on this side at least, offers little encouragement to a climber.

There were two chalets, the smaller one apparently being the dwelling-house, and the larger building opposite, the stable for the cows; but both were as yet unoccupied, and in the cow-house, on an upper shelf, we found a quantity of good straw, which was at once thrown down on to the floor, and joyfully hailed as a luxurious couch by Reilly and myself, Whymper and the guides expressing their preference for the other chalet, where they could make themselves comfortable round the fire. It was a most glorious evening, and the sunset one of the finest I ever saw; the rocks of the Chardonnet absolutely glowed, as though they had been red hot, and the snowy summit of the Verte was illumined with the most exquisite crimson tinge, but, so soon as the sun was gone, the air became cold, and we were glad to retreat under cover, and get round the blazing fire that the guides had lit. A certain amount of caution was necessary in moving about the chalet, as close to the door was a large hole, full of water, into which I believe, each one of the party in succession, unwarned by the example of his predecessor, managed to plunge his foot, of course, much to the satisfaction of the previous, equally with the future, victims. After supper and a brew of hot wine and water, Reilly and I retired to our straw, attended by Almer, who, having packed us up all right, left us to our meditations, which, in my case, were not long.

Wednesday, 6th July.—We were so exceedingly warm and comfortable that, when at 1.20 a.m. some one put his objectionable head into our den, and insinuated that it was time to get up, we scouted the notion, and insisted that it was a good deal too early. However, when 2.0 o'clock came, the fatal moment could be no longer postponed, so we roused up, shook ourselves, and went into the adjoining chalet, whose occupants had not, I think, fared quite so luxuriously as we had, and were, therefore, less loth to move. There was a good fire, but, as usual, break-

fast was a far colder and less cheerful meal than supper had been. Few men can be jolly when their slumbers have been cut short at such an hour of the morning, besides which, tea without milk, with the tea leaves floating about in it, is at the best of times not an exhilarating beverage. Then no butter had been



THE GLACIER D'ARG ENTIÈRE

brought, and the bread was not particularly fresh, so that on the whole I was rather glad when the apology for breakfast was over, the baggage arranged, and all ready for a start, which we managed to effect with unusual rapidity at 2.50 a.m.

Picking our way over steepish slopes of grass and stones, the latter predominating unpleasantly, we passed the upper chalet of Lognan, a miserable den, skirted some slopes of débris

mingled with snow, the passage of which, disagreeable enough as it was, would have been worse in the dark, and at 3.55 found ourselves at the side of the Glacier d'Argentière. Although we were at a point above the final ice-fall, which is so well seen from the village of Argentière, yet the glacier was still too steep and broken for us to take to it with advantage, and our route, therefore, still lay for some distance along the moraine at the side. The piece of walking which now ensued was essentially unpleasant. Sometimes we were on the moraine, scrambling over huge blocks whose equilibrium was in a most uncertain state, while at others we were able to keep in the hollow between the moraine and mountain side, along the still unmelted remains of the winter avalanches from the precipices of the Aiguille Verte. But by 4.25 we had risen above what I suppose must be called the central ice-fall, though it is scarcely worthy of the name, and were standing at the entrance of the great upper basin of the glacier. The scene from this point was extraordinarily fine, and would alone render the passage of the Col du Chardonnet a far more interesting route to Orsières than that of the Col du Tour.

Looking south, we saw straight up the whole length of the glacier, which is remarkable, first for the unusual directness of its course, and secondly, for the singularly slight inclination of its bed. It is, indeed, an almost level field of névé, nearly free from crevasses, and hemmed in on three sides by precipitous walls of cliff, that on the east being broken by several considerable bays, filled by steep lateral glaciers. The very head of the glacier is closed by a tremendous wall, extending from the Mont Dolent on the east to the Aiguille de Triolet on the west. The Mont Dolent is one of the most beautiful snow-peaks I ever saw, and rises steeply from the general level of the ridge to a perfect point. From this side it is quite inaccessible, but it was subsequently ascended[2] by Whymper and Reilly from the Col Ferret, without very serious difficulty, and they report the view from it to be even superior to what might be expected from its height of 12,566 feet. The great wall connecting it with the Aiguille de Triolet is seamed with snow couloirs, of great length and steepness, all hopelessly inaccessible in appear-

ance,* which may also be said of the Aiguille de Triolet, a superb tower of rock,[3] rising to a height of 12,727 feet, far more massive but less graceful in form than the better-known Aiguille du Dru. The line of precipices extending northwards from the Aiguille de Triolet to the Aiguille Verte, which forms the left bank of the Argentière Glacier, and separates it from the basin of the Glacier de Talèfre, is of the same character as that above described, but loftier and even more forbidding in appearance. It rises about midway between the two Aiguilles into a very beautiful, sharp snow-peak, the highest point of the Tour des Courtes, but otherwise preserves along its whole course a tolerably uniform elevation. It has always been a dream of the Chamouni guides in general, and of old Auguste Simond in particular, to find a passage somewhere over this ridge from the Glacier de Talèfre to that of Argentière, but, although it is possible without much difficulty to scale the ridge from the former glacier, close under the Aiguille de Triolet, no one has yet been rash enough to attempt a descent of the crags on the east side, nor is any traveller likely to waste time in such a foolhardy expedition, as the pass, if effected, would be of no use for any practical purpose.[4] North of the Verte the general level of the ridge is much lower, and a considerable lateral glacier comes down towards the main stream, over which and the Glacier des Grandes Montets on the other side lies an easy pass to the Chapeau and Montanvert. The parallel range that extends from the Mont Dolent to and beyond the Chardonnet, and comprises the fine peaks of the Tour Noir and Aiguille d'Argentière, is broken by spurs, running down from those peaks, which enclose considerable lateral glaciers, all more or less steep and crevassed, but all practicable without much difficulty. The consequence is, that three passes have been made in this direction to the glaciers descending into the Swiss Val Ferret, — the Col d'Argentière to the La Neuvaz Glacier, between the Mont Dolent and the Tour Noir,—the Col de la Tour Noir, between the Tour Noir and the Aiguille

* In 1865, Mr. Whymper made a pass over this tremendous wall, ascending from the Italian Val Ferret by the Glacier du Mont Dolent. The descent of the couloir down to the Argentière Glacier took him seven hours.

d'Argentière,—and the Col du Chardonnet, between the Aiguille d'Argentière and the Chardonnet,—both communicating with the head of the Glacier de Saleinaz, though the first-named pass of the two is never likely to be a frequented route.[5] Immediately north of the Chardonnet, the ridge reassumes its usually forbidding aspect, and there are no signs of the pass which Professor Forbes was informed many years ago existed in this quarter from the head of the Glacier du Tour.

We were now immediately opposite the foot of the lateral glacier, leading up to the depression between the Aiguille d'Argentière and the Chardonnet, from which we supposed the former peak to be accessible, and whither we were, therefore, bound. Our first step was to cross the glacier towards the Chardonnet, making for a point just to the south of the spur coming down from that peak, which forms the right bank of the lateral glacier, whose left bank is protected by a similar spur from the Argentière. This operation was quickly performed, and by 4.35 we were on the other side, and halted a few moments to contemplate the wonderful precipices of the Verte which towered up magnificently on the side of the glacier we had just quitted. The lateral glacier, in its final plunge towards the main stream of the Argentière, is considerably broken up into séracs which stretch pretty well from one side to the other, and, when Reilly first made the passage last year, were found rather troublesome. But they were now almost covered with snow, and would have presented no serious difficulty even had we been compelled to make an attack *en face*. This, however, was rendered unnecessary by the presence, close under the moraine from the Chardonnet, of a long slope of snow, which offered a steep but easy way through the broken part of the glacier on to the smooth snow-fields above. The ascent was sufficiently rapid, and the snow rather hard, but by a series of short zig-zags we mounted without much trouble, and, in an incredibly short space of time, had left the Glacier d'Argentière a considerable depth below us, the séracs behind us, and, striking into the centre of the glacier, had the pleasure of seeing nothing but straightforward snow-slopes between us and the Col. On our left were the splendid crags of the Chardonnet, which we

carefully examined in hopes of discovering a practicable line of ascent to the summit; but the rocks are hopelessly steep and smooth, while the few couloirs by which they are marked are most impracticable-looking, and not likely to be of much use in an attack.[6] On our right rose the great mass of the Aiguille d'Argentière,—in spite of its superior height, not so striking an object as its neighbour, but far more accessible in appearance. A broad couloir, or rather slope of névé, ran from the glacier we were traversing, very far up into the recesses of the mountain, and, indeed, seemed to strike the arête at a point not far below the summit. Its appearance was so tempting that a question was raised as to the propriety of changing our line of march and seeing what could be made of it, but we were all so persuaded that an equally easy, and probably more interesting, route would be found from the Col, that we adhered to our original plan. The snow was very hard and in the best possible order, and we progressed rapidly, as far as the foot of the final slope, which was rather steeper than lower down, and could not, therefore, be carried at a run, but it did not delay us long, and at 6.5 a.m. we reached the Col.

We cast a hasty glance up at the arête leading towards the Aiguille, the aspect of which slightly startled us, but, before we could take a thorough good look at it, we were compelled to find some shelter from the violent and piercing cold north-west wind that was blowing. Scrambling up the rocks of the Chardonnet, we found a tolerably-sheltered position, and settled ourselves to study carefully the appearance of our enemy. A very short inspection revealed the painful fact that we were undeniably 'sold,' and that, in calculating so surely on the accessibility of the Aiguille from the Col, we had reckoned without our host.[7] Instead of an ordinary arête, as we had expected, of good rock succeeded by snow, we found the lower and most considerable portion to consist of a steep ridge of splintered, rocky pinnacles, the interstices of which were filled with snow and ice, completely cutting us off from the evidently practicable part higher up. The guides, as usual, did not like to confess that the thing was from its very nature impracticable, so took refuge in the orthodox platitudes about the quantity of snow being the cause of the

difficulty; but I am certain that the total absence of snow would make no material difference in the accessibility of this lower portion of the arête. Of course, our thoughts now reverted to the slope of névé which we had observed on our way up, and by which we had little doubt it would be possible to get on to the upper part of the arête, but the idea of toiling up it in such a bitterly cold wind as was raging was the reverse of agreeable. The height of the Aiguille d'Argentière is 12,836 feet, and the Col du Chardonnet cannot be more than 10,800,[8] so that, allowing for the distance to be first descended, we should have some 2000 feet of almost continuous step-cutting, on a slope exposed from its position to the full force of the wind, before even reaching the arête. We were sitting in comparative shelter, but could form a tolerable judgment of the violence of the wind from its effect as it blew across the eastern face of the Aiguille. The snow was streaming away in clouds, while, occasionally, thin slabs of ice were forced away from the surface of the slopes, and whisked through the air. The guides looked blue (by anticipation) at the notion of what their sensations would be while cutting the steps, but, of course, would not express their candid opinion as to the propriety of the proceeding. However, at last Almer plucked up courage, and admitted that for his part he thought the attempt would be an unjustifiable piece of folly; the other men concurred, and it became tacitly understood that for to-day the Aiguille d'Argentière was to be let alone. I must confess to having been sorely disappointed, though I by no means regretted the decision, but our previous unlimited confidence only made the total collapse of our plan more aggravating.

As each party had plenty of time before it we were in no hurry to leave our refuge, and sat contemplating the spotless fields of névé at the head of the Saleinaz Glacier at our feet, the towering mass of the Grand Combin in the middle distance, and more remote, but not so much so as to be hazy, the grand forms of the Weisshorn and Dent Blanche. The sky was perfectly cloudless, a state of things which rendered us only more savage at the wind, which prevented our taking full advantage of so glorious a day. I was at last so thoroughly chilled, that a move

THE GLACIER DE SALEINAZ.

was thought advisable; so a fair and equitable division was made of the provisions, Almer and I said good-bye to Reilly, Whymper, and Croz, and at 7.15 a.m., having roped ourselves together, we commenced the descent towards the Glacier de Saleinaz. (I may as well mention here that, after all, the other party did try the Aiguille, but were beaten by cold when near the top of the couloir below the arête; however, a second attempt, made a week later, was more fortunate, as, on that occasion, they succeeded in reaching the highest point without serious difficulty.) A steep snow-slope fell away from our feet to the glacier below, but, keeping close under the rocks of the Chardonnet, we crept cautiously down the upper portion of the slope, until, finding the snow sufficiently soft to give good footing, we quickened our pace, and at 7.35 dropped over a small bergschrund on to the level field of névé beneath.

The head of the Glacier de Saleinaz is divided into two bays by a buttress of the Aiguille d'Argentière, and at the lower extremity of this buttress, and for some distance beyond, the width of the main stream from bank to bank is very great. But, in its descending course towards the valley, the glacier is squeezed through a steep and remarkably narrow gorge, with the natural result of producing one of the longest and most dislocated ice-falls in the Alps. It is quite possible, as shown in 1863 by George and Macdonald,[9] to force a passage straight down this, but it is most unprofitable, and the necessity can be avoided by a rough and tiresome scramble along the rocks on the right bank. But we had no desire to encounter either the difficulties of the one course or the unpleasantness of the other, so determined to make for the Fenêtre de Saleinaz, a narrow gap in the ridge, forming the left bank of the glacier, and descend to Orsières by the Glacier d'Orny. Our route was now both easy and pleasant. We had on our left the wall of cliffs extending from the Chardonnet to the Grande Fourche, which supports the head of the Glacier du Tour; this wall is of no great height, and is marked by several broadish snow couloirs, not very steep, down any of which a pass might be effected direct from the Tour to the Saleinaz Glacier, avoiding the détour usually made to the head of the Glacier de Trient. One of these couloirs,

indeed, led up to such a well-marked gap, that we half thought it was the Fenêtre,[10] but finally concluded that the latter must be lower down, so continued our march until at 8.0 we reached the mouth of a sort of bay, with a snow slope at its head rising to a gap just under the Grande Fourche, through which we knew our way must lie.

From this point the general view of the head of the Saleinaz Glacier is particularly good, and we were able to study the great wall of ice and rock at the head of the southern arm, between the Aiguille d'Argentière and the Tour Noir, the descent of which last year occupied George and Macdonald, with Almer and Melchior, six hours. The wall is very steep, and certainly not the place one would choose in cold blood either to ascend or descend, but its appearance was less formidable than I had expected, as the bergschrund was almost invisible, and the whole wall was well coated with snow. Indeed, Almer, who from his previous experience was certainly qualified to give an opinion, insisted that we could now accomplish the ascent in two hours at the longest without much trouble. The ridge, running east from the Tour Noir, and forming the barriers between the Glaciers of Saleinaz and La Neuvaz, appeared to me to be far more impracticable than its neighbour, showing a line of tremendous ice-cliffs, lower but steeper than those at the very head of the glacier. Were it possible to scale them the traveller would find himself on the Col, at the north-western angle of the La Neuvaz Glacier,[11] which looks so tempting from the Val Ferret, and is mistaken by the uninitiated for the Col d'Argentière. The Aiguille d'Argentière appeared in its true proportions for the first time, and we were able to form some idea of the immense length of the arête leading up to it from the Col du Chardonnet, and also of the utterly impracticable character of its lower portion. The Chardonnet itself on this side offers no chance of a successful attack, and, unless it is more accessible from the head of the Glacier du Tour, its summit is likely long to remain unscaled.* But the most singular feature of the scene was the line of cliffs by which the lateral glacier leading to the Fenêtre

* The Chardonnet was climbed in 1865 by Mr. Fowler from the side of the Argentière Glacier.

is encircled, and which, running eastward from it, constitute the left bank of the main glacier. The crags are wonderfully shattered and broken into most fantastic pinnacles, but their great peculiarity is their colour, the rocks being of a decided yellow tinge, rendering the name of 'Les Aiguilles Dorées,' given them by Professor Forbes, very appropriate.

Turning sharp to the left, we left the great glacier behind us, and, advancing up gently rising slopes of snow, soon reached the base of the final one leading to the Col. This was steep but not long, and, climbing carefully over a patch of bare rock near the top, we stood at 8.25 in the narrow cleft of the ridge, well-called by Mr. Wills the 'Fenêtre' de Saleinaz,[12] and found ourselves at the edge of the great plateau of névé, forming the common source of the Glaciers of Trient and Orny. We sat down on the south side of the Col just below the ridge, out of the wind, to take a last look at the grand basin of the Saleinaz. We were much struck by the fine appearance presented by the Tour Noir, which, from here, really shows something of its actual height of 12,609 feet, or 43 feet more than its neighbour, the Mont Dolent.[13] The ascent of the final peak would be a tough piece of work, but, probably, not impracticable by the ridge connecting it with the Aiguille d'Argentière.

At 8.40 we stepped once more over the ridge, and struck across the snow-fields towards the head of the Glacier d'Orny. Nothing can be conceived more beautiful than this broad expanse of névé, as it lay glistening in the sun, under a sky whose deep blue was undimmed by even a solitary cloud, and even Almer was in ecstasies of delight. Immediately on our left was the low snow ridge, extending from the Grande Fourche to the Aiguille du Tour, over which goes the ordinary route of the Col du Tour, while, in front, we looked away to the Alps of the Oberland, the sight of which, in such comparative proximity, reminded us that for the last hour and a half we had been in our beloved Switzerland, a thought which raised still higher Almer's already, for him, boisterous spirits. The snow was in the same perfect order as it had been throughout the whole excursion, and we were, consequently, able to make rapid progress, soon reaching the point on the other side of the

plateau where the Glacier d'Orny begins to fall towards the valley. We here again opened out a superb view of the Combin and the Weisshorn, while beyond but slightly to the right of the latter appeared two very lofty sharp peaks, soaring into the air, which a very short inspection enabled us to identify as the Dom and Täschhorn. We kept down the centre of the glacier, avoiding without difficulty the few half-concealed crevasses that lay in our way, until the inclination became rather steeper, when we bore away to the left bank, and at 9.30 a.m. got off the ice on to the moraine at the side. Descending along the moraine and patches of snow on either side of it, we came at 9.40 to the little Chapelle d'Orny, a ruined and roofless hovel, adorned with a few crucifixes and a dilapidated doll to do duty as an image of the Virgin, and perched on an eminence above a tiny green lake, in whose waters islets of snow were still floating about. Once every year a grand pilgrimage is made by the population of the Val Ferret to this desolate spot, to the great damage, I should think, of their shoes, and consequent benefit of the cobblers, by whom the arrangement is probably promoted.

As Orsières was still 6000 feet below us we did not stop, but hurried on over the faint track which here first showed itself. The descent is one of the most abrupt in the Alps, passing through a mere ravine which was once entirely filled by the glacier, whose traces, in the shape of enormous old grass-grown moraines, are evident to the most inexperienced eye. The track, though rough and wearisome enough, is far better defined than any one would expect in such a situation, where there is not the usual Alp to which it is required to give access, and the Chapelle must, I suppose, be thanked for this. Throughout the descent, Orsières is in sight, always apparently at the same depth below, a very tantalising spectacle to an impatient and foot-sore traveller. As we went along, I derived a fresh consolation for the failure of our attack on the Aiguille d'Argentière in the reflection that, had we carried out our original plan, we should probably have had to traverse this obnoxious path in the dark, a contingency not to be contemplated without a shudder. During the first portion of the way the Combin is in view, and serves to distract the attention from the objectionable character

of the route, but, so soon as it sinks out of sight, there is nothing interesting in the walk. For the first time this year I was rather foot-sore, and succeeded in establishing a raw on one of my toes, which did not serve to increase my equanimity, and I was sincerely glad when we abandoned the path, and struck straight down the steep and stony bed of a dry torrent, which landed us in the Val Ferret, close to the village of Som-la-Proz, whence a broad mule path brought us to the Hotel des Alpes at Orsières, exactly at noon, or in seven hours and three quarters' actual walking from Lognan.

I had not the slightest intention of passing the remainder of the day at Orsières, but made up my mind to catch the afternoon train from Martigny to Sion, and get on as far as Sierre by evening. Having ascertained from the landlord the time required to reach Martigny, I ordered some lunch, pending the preparation of the Char, and, in its consumption, effaced the recollection of the grind of the last two hours. At 12.55 we started in plenty of time, as I supposed, until the horrible recollection flashed across me that my watch was still regulated by French time, which is half-an-hour slower than the Swiss, by which, of course, the trains run. There was, however, the chance that the train might be late, and I urged the driver to push on as fast as possible, but he was deaf to my objurgations, seldom getting out of the conventional jog-trot pace, and the consequence was that, after a hot and sleepy drive through rather uninteresting scenery, we drove up to the station at Martigny at 3.0 p.m., just as the train was rolling out of it.

There was nothing for it but to wait for the night train, so I went to the Hotel Grandmaison and spent a rather dreary afternoon, there being very few people in the house, and those far from agreeable or sociable. I, therefore, passed the time in meditating on what should be my next move, having left Chamouni without any fixed idea as to how I would pass the time before Saturday. I was half inclined to run over the Gemmi to Kandersteg, and have a shy at the Balmhorn,[14] the highest peak of the Altels group (since ascended by the Walkers); but I had also a strong desire to take a look at the great Glacier de Moiry, at the head of the western arm of the Val

d'Anniviers, from which direction it seemed probable (on the map) that the fine peak of the Grand Cornier, 13,021 feet in height, might be scaled, and after much consideration I determined on the latter plan, which was highly approved of by Almer. Dinner, though on the whole not a lively meal, was productive of some amusement, as I sat between two snobs, who with an authoritative air favoured me with a great deal of good advice as to the precautions to be adopted if I contemplated crossing the difficult and dangerous pass of the Tête Noire. I took it all in silently, and was rewarded for my forbearance by the expression of their countenances, when it happened to leak out through a gentleman opposite who had seen me at Chamouni that I had been up Mont Blanc last Saturday. I never was more glad than when it was time to go to the station, which I found occupied by a large school, consisting principally of jolly English boys, with whom I got into conversation. Nice fellows as they were, I wished them anywhere else on hearing that they were going to sleep at the Hotel de la Poste at Sion, whither I also was bound. The train left at 9.45, and landed me at Sion at 10.45 p.m. I immediately rushed off to the hotel, and was so fortunate as to secure the last remaining bed (the school having secured the others by telegraph), an acquisition of which I very soon took possession.

[Several years later, after crossing Mont Blanc from Courmajeur to Chamonix in a single day by the Miage route (see chapter XIX. below), Moore succeeded in climbing the Aiguille d'Argentière, and the following account of the climb (in which his companion was Mr. G. E. Foster) is taken from his Journal for 1873 :—]

Wednesday, 23rd July (1873).—At 2.30 on a rather doubtful morning we started for Argentière in a carriage which dropped us at the entrance of the village at 3.35. We at once turned up a path which, according to our driver, who professed to know all about it, would take us up to the chalets of Lognan, high on the slopes on the left bank of the glacier. So far as the path continued in the ravine where it commenced, all went well, but, ere long, it plunged into the thick forest which covered the hill

side, and there came to an end; at all events, we lost it. There was nothing to be done but climb straight through the wood by the most eligible way that offered, and trust to come out where we wished to be; the ground was excessively steep and the vegetation thick, and the work was extremely toilsome, but we managed to get along somehow and, at 5.5, emerged on to the pastures where are the lower chalets, the same as those, I think, in which I had slept with Reilly and Whymper in 1864, when we had the same object in view.

Passing them, and the still more uninviting upper chalets, and skirting the slopes at the north-eastern base of the Aiguille Verte, which, from this direction, looks accessible with the greatest ease—a complete optical delusion—we came in due course to the lateral moraine of the Argentière Glacier and at 6.30 established ourselves on it for breakfast. Twenty minutes were thus spent, and, soon after resuming operations, we were able to quit the moraine for the smooth glacier, which stretched away in an unbroken slope of very moderate inclination to the foot of the formidable wall at its head between the Mont Dolent and the Aiguille de Triolet. The absence of anything like an ice-fall in the upper part of its main stream and the straightness of its channel make the Argentière a peculiar glacier, while, for its length, the paucity of its feeders is remarkable; on the left bank there are none south of the Aiguille Verte, from which peak to the Triolet extends one of the most tremendous walls in the Alps; the right bank is more prolific, three bays, between the Chardonnet and the Aiguille d'Argentière, between that peak and the Tour Noir, and south of the latter summit, being filled by tributaries, of which the middle one, between the Chardonnet and Argentière, is of some size.

Until we were opposite this, our way kept on the left bank of the main glacier under the precipitous eastern face of the Aiguille Verte; then we crossed over, making for some rocks on the south side of the tributary glacier, which joins the other in a rather broken ice-fall easily turned on its north bank, under the Chardonnet, and not less so, as we now discovered, on the opposite side which was our most direct line of march. The rocks themselves were rather smooth, but they were not long,

and snow slopes above them soon landed us on the comparatively level ground; these slopes were thickly sprinkled with loose rocks fallen from the still higher regions, which were now hard frozen and firm in their position, but which later in the day, as we afterwards experienced, make the descent by this side on to the Argentière Glacier not wholly free from danger.

The larger portion of this tributary glacier comes down from the Col du Chardonnet, and the natural way to ascend the Aiguille d'Argentière seems to be to make for that Col and then follow the arête; but the lower portion of the latter is impracticable, and it is necessary to strike it much higher up, and, for this purpose, to follow a branch of the glacier which comes down from the south, and in 1864, if I recollect right, extended quite up to the ridge; it is now separated from it by a considerable extent of rock. At 9.30 we reached the point where it was necessary to diverge, and made a second halt of twenty minutes, which were profitably spent in admiring the Aiguille Verte, from here seen to perfection, and in studying our own peak, a confused mass of rock on which it is not easy to make out the summit, a double turreted tower, broad and shapeless in appearance. So doubtful, indeed, were we as to the identity of the peak that, after resuming our way up the glacier, we made something of a détour to the left in order to get a better view and ensure that we were not making a mistake.

The glacier was free from difficulty of any kind, and at 11.0 we crossed the bergschrund separating it from the rocks at its head. These were broken granite and very easy; traversing them rather from left to right, we found a broad couloir up which we climbed at a great pace, so that at 11.35 we were on the ridge which overlooks the Saleinaz Glacier, at a point about midway between the Col du Chardonnet, far down on our left, and what we presumed was the top of the Aiguille d'Argentière on our right.

To our right front, the remarkable curtain of ice which covers the northern face of the Aiguille swept down towards the Saleinaz Glacier, and seemed, at first sight, to offer the most convenient route to the summit. It was by it that the first

ascent in 1864 was made. Close inspection, however, now revealed that the slope was very bare of snow, and that to cut a staircase up it would be a long job, particularly disagreeable in the keen wind that was blowing. It was flanked on the west by rocks—a prolongation of the ridge on which we were standing—and the guides, without hesitation, preferred to make the ascent by them. A few steps took us on to them, and before we had ascended many yards, we realised that we were in for a very pretty piece of business. The rocks were as steep as it was possible for them to be, if climbable at all, and were a good deal glazed with ice, while the ledges were narrow and rounded; the hand-hold was fair, but I cannot call to mind ever having been on a place where the support for the feet was so slight and insecure. We found ourselves neither on a ridge, nor in a couloir, but on the face of an absolute wall, on which it was not possible to diverge far to the right or left of a particular line, and *that* led tolerably straight up. How we were to get down I could not imagine, so, finding that Foster was as much exercised on that point as myself, I propounded a query on the subject to Baumann, who, however, replied merely by grunts strongly expressive of dissatisfaction at being called upon to consider such a question at such a moment.

We had thought the last bit on Mont Blanc, the other day, decidedly stiff, but the worst place there was easy compared with the greater part of this. Quite near the top, the difficulties were less formidable, and at 12.55 we reached the summit, a sharp pinnacle of rock—seemingly a single stone of huge dimensions—with a cairn on it. Although this point was plainly the recognised summit of the Aiguille (12,836 feet) and we were not at all disposed to dispute its claim to pre-eminence, it was evident to us that some point of a long icy ridge which extended from it to the south was as high, or higher. This ridge is the top of the great curtain above the Saleinaz Glacier. To have gone along it from end to end would have been easy enough, but a good deal of step cutting would have been wanted, and nothing was to be gained by the performance. Moreover, the weather was menacing to a degree, clouds in all directions, and, now that we were up, the men did not

disguise their anxiety to be down again, or their nervousness about the last rocks. Therefore, we did not remain five minutes on the top.

How we got down the precipice I have never exactly understood, but my impression is that we managed by a very slight change of direction at some points to hit off a slightly better line than had been followed on the ascent. Needless to say that every possible precaution was taken, and that every man moved with a keen sense of the responsibility which attached to every step. At 2.15, in one and a quarter hours from the top, we were once more on the easy rocks at the head of the glacier, where all danger or difficulty was at an end. Personally, I should require a very strong inducement indeed to repeat the operation.

Of the rest of the descent, not much need be said. The rocks above the bergschrund, being very loose and broken, required some care and occupied more time than on the ascent, but once on the glacier all was plain sailing. The descent from the lateral glacier on to the Argentière was made rather lively by falling stones which, now unloosed by the sun, were shooting down freely—but, luckily, wide enough from our track. We reached the lower chalets of Lognan at 6.0 and there indulged in milk, for which an extortionate price was charged; the path down to Argentière, which, starting from this end, was of course easily found, keeps rather near to the glacier throughout, and is steep and stony. The way, however, is not long, and at 7.15 we reached the Hotel de la Couronne, well pleased to have anticipated the storm which had been gathering all the afternoon, and which burst with extreme fury shortly after our arrival.

NOTES TO CHAPTER VII

[1] There is now a quite decent little mountain inn (the 'Pavillon de Lognan'), on the alp above the left bank of the glacier, at a height of 6670 feet (more or less in the position indicated by Moore as that of the 'higher chalet'), which can be reached in an easy two hours' walk up from Argentière. (It may be noted here that I have modernized the spelling of several place-names in the text, although they remain, of course, unaltered in the sketch map at p. 165.)

[2] This ascent was made on the 9th July 1864, only three days after the attempt on the Aiguille d'Argentière here related (see Whymper's *Scrambles*,

chapter xi.), by the Pré de Bar Glacier, on the south (Italian) side of the peak (12,566 feet). The Mont Dolent has not been ascended from the side of the Glacier d'Argentière.

[3] This point (12,727 feet) was first climbed in 1874 by Mr. J. A. Garth Marshall. The ascent was made from the Pré de Bar Glacier. Three years later a route was found to the summit from the Triolet Glacier.

[4] The two highest points in the ridge (Les Droites and Les Courtes) between the Triolet and the Verte were reached in 1876 by Messrs. Cordier, Maund, and Middlemore. The maps show a pass called the Col des Droites (12,221 feet) across the middle of the ridge, but this pass has never been traversed, although it has been reached several times from the south side (the Glacier de Talèfre). The ridge, however, inaccessible as it seems, has been crossed at least once, for the party above mentioned reached the summit of Les Courtes (12,648 feet) from the Argentière Glacier on the north-east, and descended by 'difficult and extremely rotten rocks' to the Glacier de Talèfre on the south-west. It is probable, according to M. Durier, that Les Courtes had been previously ascended from the Talèfre Glaciers by men in search of crystals, for which the rocks of this mountain are famous.

[5] All these three passes eventually lead down into the Swiss Val Ferret. The first to be traversed was the Col d'Argentière (11,549 feet), crossed by Mr. Stephen Winkworth in 1861. The Col du Tour Noir (10,582 feet) followed in 1863, Messrs. H. B. George and Macdonald crossing it under the impression that it was the Col d'Argentière, and having great difficulty in the descent on the Swiss side (see *Alpine Journal*, vol. i. p. 274). The Col du Chardonnet, although it is by far the most obvious of the three passes, and in fact much the easiest, was not crossed until a month later than the Col du Tour Noir, its first climbers being Messrs. Adams-Reilly and Brandram. The pass has a special interest and importance as being an important link in what is known as the 'High Level Route' from Chamonix to Zermatt. This route, which remains one of the most delightful of Alpine expeditions, after reaching Orsières by the Col du Chardonnet, crosses the Col du Sonadon from Bourg St. Pierre to Chermontane, thence reaches Arolla by the Col d'Otemma and the Col de Pièce, or by the Col du Seilon and Pas de Chèvres, and arrives at Zermatt by the Col de Bertol and Col d'Herens, or by the Col du Mont Brulé and Col de Valpelline. (See *Peaks, Passes, and Glaciers*, Second Series, vol. i.)

[6] The Aiguille du Chardonnet (12,543 feet) was first climbed in 1865 by Mr. Robert Fowler. The ascent was made from the south-west and west, —the side opposite to that seen by Moore. In 1879 it was climbed from the Tour Glacier, and finally in 1890 it was descended to the Chardonnet Glacier, by the 'impracticable-looking' (a perfectly accurate description) rocks and couloirs of its south-east face.

[7] As Moore mentions further on, the Aiguille d'Argentière was first ascended by Adams-Reilly and Whymper a week later (*Scrambles*, p. 249, etc). Since 1880 several other routes have been found, or made, to the summit,

and in 1885 Monsieur Paul Perret succeeded in making an ascent substantially by the north-west arête, which stretches upwards from the Col du Chardonnet. Moore climbed the Aiguille d'Argentière himself with Mr. S. E. Foster in July 1873. The extracts from his Journal of that date (pp. 176-180) show what he thought of it.

[8] The now ascertained height of the Col is 10,978 feet.

[9] This was on the first descent from the Col du Chardonnet. Justice Wills also found much difficulty here on the first passage of the Fenêtre de Saleinaz. Of late years, however, the glacier appears to have altered greatly, and it is now quite a simple matter to descend the whole length of the glacier until a point opposite the Pointe des Plines, below which, but at a great height above the lower ice-fall, there is now a large hut on the right bank. From the careful way in which rock-steps have been cut along the track below the hut, and even chains and bars provided, one draws certain inferences as to the class of tourist which now frequents this region, and ascends the Chardonnet—'jusqu'à la Cabane de Saleinaz.'

[10] This pass is no doubt the Fenêtre du Tour (11,405 feet), first crossed by Sir Frederick and Mr. Walter Pollock in 1867.

[11] The Col de la Neuvaz (11,221 feet) first crossed by Monsieur Albert Guyard in 1876.

[12] The account given by Mr. (now Sir Alfred) Wills of his passage of the Fenêtre de Saleinaz (10,858 feet), which forms the opening paper in the first volume of *Peaks, Passes, and Glaciers* (1859), must always remain, to those of us who read it at the time (as indeed it must be also to later readers) one of the most entirely delightful records of a mountaineering expedition which was ever written. Not so exciting as many another story, nor telling of any unparalleled difficulties nor unequalled endurance, it yet represents in the most genuine fashion the feelings of a climber who clearly loves Nature first of all, and the mountains afterwards as the grandest and noblest part of Nature. Of late years there seem to be many who are impressed by the mountains only as things to be climbed, and who write of them and the climbing of them solely from this point of view. Far be it from me to suggest that there is not immense enjoyment to be had from the mountains even from this narrowest basis. But surely the broader view makes possible incalculably greater enjoyment. And with those of us who find that muscles grow yearly stiffer and lungs more empty, and who know too well that the peaks of last season may prove to be the last peaks ever reached, it is only the intense love for the mountains in themselves—though now unclimbed and no longer climbable—as a part of our mother Nature, that prevents us from uttering the malediction of Job on the day we were born.

[13] Further survey has shown that the Tour Noir (12,546 feet) is 20 feet lower than the Mont Dolent. It was first climbed (not, however, from the north) by Messrs. E. Javelle and F. F. Turner in 1876.

[14] The Balmhorn (12,180 feet) was first climbed by Mr. Walker and Mr. Horace Walker in 1864. (See *Alpine Journal*, vol. i. p. 378). Moore himself climbed it in 1866.

CHAPTER VIII

THE GRAND CORNIER

Thursday, 7th July (1864).—I was called at 5.0, and at 6.0 a.m. we started for Sierre in a one-horse Char, well satisfied with our hostelry. I believe that the 'Lion d'Or' is the crack inn at Sion, but I can answer for the excellence of the accommodation and civility of the landlord of the 'Poste.' The valley of the Rhone, though rich and fertile, is a part of Switzerland which a mountaineer always does his best to avoid, or, if unable to circumvent altogether, escapes from as rapidly and as soon as possible. The heat generally makes even driving unpleasant, but at this early hour of the morning the air was fresh and our journey agreeable, so that I carried away more pleasant impressions of the valley than the ordinary ones of dust and weariness. We rattled merrily along, and at 7.35 reached the Hotel Baur, a fine new house, standing by itself just the other side of the town of Sierre. It is, I believe, largely frequented by Germans *en pension*, but, otherwise, I can't imagine so large a house in such a hot position being remunerative to its pro-

prietor. While Almer was filling the wine flask, and making the other preparations necessary for a two days' flight from the haunts of tourists and civilisation, I took a second breakfast, which I by no means wanted, for the good of the house, and listened to the ravings of the landlord on the beauties of the Val d'Anniviers, whither we were bound. At 8.15 all was ready, and we set off along the broad road of the Simplon, which had to be followed for a short distance. As it was, we turned off too soon, and did not discover our mistake till we were brought up by the rapid stream of the Rhone, without a bridge across it. However, a short cut across the fields brought us back again into the road, which we finally quitted at 8.45, and, crossing the river, commenced a rapid ascent up the hillside on the opposite bank, in order to reach the entrance of the Val d'Anniviers. The gorge through which the Navigense, which drains the valley, flows to join the Rhone, is of immense depth and very narrow, so that the path is carried by a long succession of zigzags to a great height above the valley of the Rhone, of which it commands an admirable view, before it turns the corner and fairly enters the Val d'Anniviers. Thenceforward the rise is very gradual, and the path smooth, broad, and for the most part well constructed, far better, indeed, than that of the adjoining but, in my opinion, much less beautiful valley of St. Nicholas. Improvements, too, are still being carried out, as we passed gangs of men working away busily at the road. I had formed high expectations of the scenery of the Val d'Anniviers, and the reality far exceeded my ideal. Nothing is wanting to complete the effect, and rocks, wood, and water combine to form a perfect picture. The valley is far more picturesque than the valley of Zermatt, not being so narrow, so that all the lower slopes are dotted with fields and chalets, which form a charming foreground to the pine-clad hills behind. In the distance, at the extreme head of the valley, our eyes were regaled by a view of the broad expanse of the Moming Glacier, backed by the towering pinnacle of the Rothhorn, the dark obelisk of Lo Besso, and the sharp peak of the Gabelhorn. The Rothhorn we scrutinised with especial interest, as we hoped to meet Winkworth at Zinal on the 16th, to make an attack on its precipitous cliffs, and also

try a pass to Zermatt between it and the Weisshorn. The path wound along at a great height above the stream, which was quite invisible, but was heard roaring in its course at the bottom of a deep and savage ravine, a mere cleft in the bed of the valley. It made long dips into lateral gorges, where the overhanging rocks were pierced by well-constructed galleries, and at the head of one of these, in a delightfully shady nook, was placed a seat and a trough with a beautiful clear spring flowing into it, presenting a combination which it was impossible to resist, so we sat down and refreshed ourselves for ten minutes. We were very loth to move again, but necessity compelled, and we sauntered leisurely along until at 11.30 we came to the village of Vissoye, the principal place of the valley, where, in order to economise our provisions, we determined to try and get something to eat.

We went first to the curé's house, but he was 'not at home,' so we were directed to the abode of one Mons. Georges Genoux, a peasant of the better class, who showed us into a room, the windows of which, to judge from the musty odour by which our noses were saluted, must have been hermetically sealed for years. We soon effected an improvement in this particular, and our host set before us some excellent bread and butter, an omelette, and a bottle of genuine Vin du Glacier, as clear as crystal, and of no inconsiderable strength, far different from the nasty stuff sold at hotels under that name. All wines are to me more or less indifferent, but I really enjoyed this, and Almer smacked his lips over it with an expression of profound satisfaction quite pleasant to witness. While we were refreshing exhausted nature, a pleasant-looking, lively young native, named Jean Martin, came in and entered into conversation with us. Hearing what our plan for the morrow was, he was most anxious to be taken with us, and showed a certificate from the Rev. Sedley Taylor to the effect that last year he had been on several expeditions with that gentleman. Almer was not at all anxious to have a second man, but suggested that if he would come for a moderate sum we might as well take him. There was not much difficulty on this score, as his demands were limited to the modest sum of five francs, so he was told to go

and get himself ready with all speed. He made his appearance in due course, armed for the fray, and at 12.40 we left Vissoye, Mons. Genoux impressing upon me that his house was not an inn, but that he was always glad to furnish travellers passing up or down the valley with such rough accommodation as was in his power.

The path up the main arm of the valley to Zinal still keeps high up above the right bank of the stream, but we at once turned downwards, and made a rapid descent to a wooden bridge which carried us over to the left bank, along which lay our route. As we were descending, we met the curé coming up, and stopped to exchange greetings with him. The only thing remarkable about his reverence was his nose, the purple hue of which betokened that its owner's stores of Vin du Glacier were extensive, and his visits to such stores by no means unfrequent. After crossing the stream, the ascent was for some distance very steep, and the path by no means so good as it had been on the other side, but the view of the Moming Glacier, Weisshorn, and Rothhorn, which opened out as we advanced, was a more than sufficient recompense for the roughness of the way. The actual summit of the Weisshorn was in a cloud, but the great wall of rock which it presents on this side was well seen, while the final pinnacle of the Rothhorn was perfectly clear. We were rather too far off to see anything decisive, but what we could make out did not encourage us to hope for much success in an attack on that peak from that quarter, while the pass looked scarcely more promising. We gradually worked round into the Val Moiry, as the western branch of the Val d'Anniviers is called, and at 1.55 p.m. passed through the first village, the dirty hamlet of Grimentz, situated just above the junction of the two branches. There did not appear to be a soul in the place, male or female, old or young, the whole population, I suppose, being engaged with cows on the mountains. The lower part of the valley is very fine, a narrowish gorge, densely wooded, through which the path mounts steadily, though never very rapidly. There appears to have been a landslip in days of yore, as the ground is strewn with various sized boulders, most of them grass-covered, and overgrown with trees. Higher up, the valley contracts still

more, and the stream forces its way with difficulty through a narrow cleft, which the path avoids by a steep ascent, that brings it out into a long, rather desolate glen, where, for the first time, we came in sight of the end of the great Glacier de Moiry in front. We met several parties of peasants going down the valley, who gave us alarming reports of the illness of the cows at the Alp, which made us fear that our evening meal would be without the greatest of mountain luxuries, fresh milk and cream. The glen at last opened out into a rather extensive plain, in the middle of which were seen two groups of chalets, one on either side of the stream. At 3.50 p.m. we arrived at those on the left bank, near the foot of the Col du Torrent, where we found the herdsmen, who gave us the welcome news that, out of the 150 cows there assembled, not more than half were afflicted with the mouth disease, which appears so prevalent in all parts of the Alps this year.

The master of the chalets, a weather-beaten old fellow, received us most hospitably, and showed us a long shelf running along the wall of one of the huts, covered with straw, where they all slept, and where, he said, there was plenty of room for us, if we could put up with such poor accommodation, an offer which we, not being fastidious, thankfully accepted. The Moiry Glacier, or rather its lower portion, was full in view, and above it a considerable ice-fall, which I at first thought belonged to the main glacier, but, on adjusting the map and compass, it was evident that it merely belonged to an affluent of the main stream that comes down between the peaks called on the Federal map 'Zatalana' and the Couronne de Bréonna. The three peaks of the Zatalana form a fine group, of which a snow-peak in the centre appears from the Alp to be the highest, but it is not really so, the most elevated point being a rocky peak, the most distant of the three. The old herdsman assured me that there was a pass up this lateral glacier to the Alp at the foot of the Ferpècle Glacier in the Val d'Hérens, which he himself had crossed, and that it was difficult on this side, but easy on the other.[1] He also said that 'he had been on to the upper plateau of the Moiry Glacier; that he was uncertain about the accessibility of the Grand Cornier from that quarter, but that

the head of the glacier was connected by undulating fields of névé with another considerable glacier running down towards Abricolla from the ridge between the Grand Cornier and Dent Blanche; that we should be able easily to get on to that ridge, and that from it he believed the peak to be practicable.' This did not quite correspond with the map, which represented the Moiry Glacier to be cut off from its neighbour by a ridge of rocks; but the old man spoke as if he knew what he was talking about, and we thought that for once the map might be wrong.

The chalets are at a height of 7054 feet, and the air soon became chilly, so that we retired into the cheese-making apartment, and, sitting round the blazing fire, over which the huge cauldron, filled with milk, was simmering, made ourselves comfortable, watching the operations of the herdsmen. Our worthy hosts seemed determined that we should not starve, and plied us with milk, cream, séracs, curds and whey, and other chalet luxuries, to such an extent that our mouths were never empty, and I began to be somewhat alarmed at the possible effect upon our interiors of such unwonted indulgence. The old chief routed out a sheet of an *Illustrated London News* of 1862, containing some pictures of articles in the Exhibition, and wanted me to explain to him what they all were, a rather difficult task, as my German is not first-rate; but the old fellow was satisfied, and carefully folded up and put away his treasure. After sunset we retired to roost, and I flattered myself that I was going to be very comfortable in the straw, but, very soon after taking up my position, I became painfully conscious that, putting the other men out of the question, I was not alone. Now the bites of fleas at the time do not annoy me, but the sensation of being crawled over, or of an active steeplechase being carried on about one's body, is unpleasant, and, what with this circumstance and the heat of the atmosphere, it was some time before I fell asleep.

Friday, 8th July.—My slumbers were very disturbed, and I was scarcely sorry when at 2.45 a.m. Almer announced that it was time to get up. The traces of my agile tormentors were very thick about my body, and, judging from the size of the

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bites, the breed must have been a particularly fine one. On going into the adjoining chalet, we found a blazing fire, which was very welcome, as the air was not too warm, and a quantity of boiled milk ready for our breakfast, of which, however, I could take but little, feeling rather bilious, and altogether out of sorts. On asking the old herdsman what we had to pay (for the three, be it understood), he replied, after a little hesitation, 'half a franc,' or about 4½d. English. I was so taken aback that for a few moments I could find no words to express my ideas on the subject; but, on being convinced that I had not misunderstood the reply, endeavoured to persuade him to name a higher price, but in vain, and I only succeeded in forcing two francs upon our excellent host by threatening to throw them down on the grass and leave them there, the amount being, after all, scarcely the actual value of what we had eaten and drunk, not to mention our night's lodging and the trouble we had given. Finally, at 3.55 a.m. we managed to make a start, under a parting shower of good wishes from all the men, on as glorious a morning as could have been desired, the heavens being cloudless and the air calm.

Crossing to the right bank of the stream, immediately above the chalets, we followed a tolerable track over rough pastures, towards the foot of the glacier which was in full view in front. At 4.40 we were abreast of it, and were sorely tempted to take at once to it, as, above the final steep bank of ice, stretching completely across the valley from one side to the other like a great rampart, there was an uninterrupted stretch of smooth ice for a long distance. But as the 'gazon' along the right bank appeared to offer a way almost as easy, while the glacier might after all turn out less smooth and straightforward than we supposed, it was determined after consideration to exercise that discretion which is said to be the better part of valour, and stick to *terra firma* as long as possible. We were now able for the first time to get a view up the main Glacier de Moiry, which is a noble ice-stream, comparable to any other in the Alps, and bearing a strong resemblance in its physical features to the Glacier of the Rhone. Between the Pigne de l'Allée on the east, and a spur running down from the highest peak of

the Zatalana on the west, is a tremendous ice-fall of great height and very steep. The lower part of this extends completely from one side of the glacier to the other, but higher up, under the Pigne de l'Allée, is a belt of smooth ice, which, we had no doubt, would give access to the field of névé above the fall. Below this great cascade of séracs, the ice is as compact and level as above it is steep and dislocated. Indeed, I never saw an ice-fall confined within such plainly defined limits, or terminate so abruptly. We bore away to the left, and, passing the wretched chalets of Fétadour, the highest buildings in the valley, where later on in the year the cows are driven up for a short period, I should imagine to the mutual dissatisfaction of themselves and their keepers, the pastures being poor and the accommodation limited, we had an agreeable walk over almost level ground. But at length the grass died away, the hill-side sloped more steeply towards the glacier, and we were reduced to a narrow tract between the two, covered with stones, varied by patches of fast-melting snow.

As we were picking our way over this wilderness, we suddenly came upon an uncommon scene which caused us to halt abruptly. Within fifty yards of us, by the side of a big rock lay a chamois—dead, and by its side stood a second, young but tolerably well-grown, so absorbed in contemplation of the body of its dam that our approach was unobserved. We held our breath, and cautiously crept towards the group. When the little creature at last perceived us it manifested no alarm, and still stuck close to the body of the other, but, as we approached, looked about, as though undecided what to do, appreciating its danger, but loth to abandon its useless watch. Almer and Martin were in an agony of excitement, and we all thought that the animal would allow us to surround and seize it, but, as we came closer, its natural antipathy to man prevailed, and, just as we were on the point of making a rush to secure the prize, it darted away up the rocks, and, although no great height up, was soon out of our reach. We examined the dam, which appeared to have died quite recently from natural causes, no sign of a wound or external injury being discoverable. It was a fine beast, and Martin gnashed his teeth with

vexation at being unable to bring down its offspring. It seemed probable, however, that after the first alarm the little one might return to its post, so Almer and I hid ourselves, while Martin crouched underneath the rock, with the dead animal over his shoulders. But our stratagem was unsuccessful, as, although the beast came down a short distance, it sniffed mischief in the air, and remained out of reach, so that our patience was at length exhausted, and we went on our way. Personally, I was not sorry for the result, as, had we caught the creature, we must have killed it with our axes, an operation in which I should have been sorry to assist. Martin shouldered the body of the old one, but, finding it heavy, hid it away in a snow-filled cleft in the rocks, intending to recover it another day. Seeing this, Almer communicated to me his private impression that our friend was 'a pig,' and meant to sell the carcass to the inn people at Zinal for the use of unsuspecting travellers, an idea which made me resolve to be cautious what I ate on my eventual arrival at that place.

The ground rapidly steepened, and we soon found ourselves engaged in a rough scramble up and along rocks and shaly slopes, with an occasional patch of hard avalanche snow, where steps had to be cut. The way was by no means difficult, but our progress was very slow in consequence of numerous halts, caused by alarms of chamois, when Almer and Martin would persist in standing for five minutes at a time with their eyes immovably fixed on some patch of rocks, where they persuaded themselves that they saw those tantalising animals. For the sake of peace I always pretended to share the delusion, but on one occasion there was really no mistake about the matter, as there, perched on the very top of the rocks on our left, cut out against the sky line, were three magnificent beasts, posed in the conventional attitude always seen in wood-carvings, but so rarely in actual life. Under ordinary circumstances these delays would have been very aggravating, but the various combinations of milk in which I had indulged last night had had their not altogether unexpected effect, and I was so very unwell that I was glad of any excuse for resting on our toilsome ascent. By 6.30 we had risen to a great height, and, finding a convenient nook

in the rocks, halted for breakfast, in the hope that a meal would restore me to my usual state of salubrity. I did feel better for the time, but the good effect was only transient. At 7.0 we were off again, and, having climbed rather too high up the rocks, were obliged to make a considerable descent, in order to get round a projecting spur. This was accomplished without difficulty, but entailed another steep ascent, which brought us at 7.30 a.m. to a point above the worst part of the ice-fall, where we could take to the glacier. On our right we looked across the ice-fall to the group of the Zatalana, and the lateral glacier at their base, which is rather steep and much crevassed, and closed at its head by a lofty ice-wall, cut off from the névé below by a well-marked bergschrund. The pass in this direction to the foot of the Ferpècle Glacier would be undoubtedly difficult but practicable.[2] It has never, I believe, been crossed by a traveller, but is well worthy attention as a high level route from the Val Moiry to the Val d'Hérens. On our left the glacier ran up in a bay, rising in a series of very gentle snow-slopes to the ridge, or rather broad 'grat,' north of the Pigne de l'Allée, over which lies a pass,[3] used occasionally by the natives, to the Alp de l'Allée, and so to Zinal, from which place the head of the Glacier de Moiry can, therefore, be gained, with the same facility as by the route I adopted. My object in following the course I did was to see the western arm of the Val d'Anniviers, and, principally, to examine the whole length of the Moiry Glacier from its very end.

By this time my malady had so increased, that I began to fear that for the first time in my life I should have to abandon an expedition from sheer physical inability to put one leg in front of the other. I felt as weak as a rat, and certainly should have succumbed then and there, had not Almer almost forced me, very much against my inclination, to swallow a cup of the thin red wine we had with us. I did not put much faith in the remedy, but it worked wonders, and completely quieted the raging demon within me, who thenceforward troubled me no more, but I had been taught a lesson, which I did not soon forget, of the advisability of moderation at chalets.

The snow was perfectly hard, but it was thought prudent to put on the rope, which was quickly done, and we then, under

Almer's lead, started across the bay before mentioned, steering to the right towards the main glacier, in order to pass round a long spur from the Pigne de l'Allée. The passage was easy enough, the snow scarcely yielding under our feet, but there were signs of crevasses, which showed that the rope was not a needless precaution. The end of the spur round which we passed showed as bare rock, crowned with ice-cliffs, which, judging from the débris that lay scattered over our route, are not always so quiet and innocuous as we found them. Once round the spur, we struck straight up to the left, in order to get on to the ridge above the Zinal Glacier, from which we rather expected to get a view. This was not the most direct line of march for the head of the glacier, but Almer thought that, once on the ridge, we should find the walking easier than if we made straight running for our goal. The slopes were rather too steep for comfortable walking, but the ever-thoughtful Almer made gashes in the snow as he went along, which, slight as they were, were sufficient to give good footing and yet cost him very little labour, so that we progressed rapidly, and at 8.15 got on to the ridge, and looked down upon the lower part of the Zinal Glacier, and across to the great wall of cliff extending from the Weisshorn through the Schallihorn, Rothhorn, and Trifthorn, to the Gabelhorn.

Of the magnificence of this glorious array of peaks and glaciers no words of mine can pretend to give an idea. The Weisshorn, as it is the loftiest, is also the most massive of the great peaks visible, but the Rothhorn is an even more remarkable object, its final pinnacle towering defiantly into the air abruptly from its supporting ridges, in a manner that I have rarely seen paralleled. At the base of the ridge, connecting these two peaks, lay the broad expanse of the Moming Glacier, terminating, above the Arpitetta Alp, in a great ice-fall. There were two well-marked depressions in the wall above it, one between the Weisshorn and Schallihorn, the other between the latter peak and the Rothhorn, both the reverse of promising in appearance, though we thought not impracticable. We could not see so much as we had hoped of the ascent to the second gap nearest to the Rothhorn, in consequence of the glacier in that direction being to a great extent masked by the remarkable

peak of Lo Besso, and its ramifications on the right bank of the Zinal Glacier. On our left was the Pigne de l'Allée, rising but slightly from the ridge on which we were standing, while, on our right, the same ridge gradually rose to a snow-point, which, though higher, was scarcely better marked. This was called by Martin the 'Steinbock,'[4] and is, I believe, though I don't feel quite certain on the subject, the point marked on the Federal map 3484 mètres, or 11,432 feet.

For a short distance we kept right along the top of the ridge above the precipices overhanging the Zinal Glacier, but were at last obliged to bear down to the right, in order to get round the shoulder of the snow-peak aforementioned. The descent was not very considerable, and we were soon round the corner, when, for the first time, we came in sight of the immediate object of our ambition, the Grand Cornier itself, which rose in a steep cone from the head of the glacier to a height of about 1700 feet above us. Somehow or other we had never anticipated any very serious difficulty in reaching the summit, and the effect produced upon us, as we carefully studied the appearance of the peak, was, therefore, greater, the result being, that Almer and myself gradually and independently arrived at the painful conviction that from the head of the Moiry Glacier the summit was altogether inaccessible. Almer first expressed this in words: 'Unless,' said he, 'we can find a way along the base of the actual peak to the other side, we shall not get to the top,' a decisive opinion, which carried more weight as coming from one who, like all his class, shirks giving a candid opinion on such a subject, especially when that opinion must be unfavourable to the object in view. The nearer we approached, the less doubt was there about the matter, and, when at 9.10 a.m. we once more stood on the ridge above the Zinal Glacier, at the northern foot of the mountain, our first glance was downwards, to see what chance there was of our being able to get on to the arête which, running east from the summit, forms the right bank of a steep tributary of the Zinal Glacier. But the rocks at our feet[5] fell sheer down towards the head of this tributary glacier, while the angle between the two arêtes of the Cornier was occupied by a slope, or rather wall of pure ice, of such steepness that, *even* if

we could have got on to it, we could *not* have traversed it. We had imagined, from the Federal map, that the two ridges which form the southern and eastern boundaries of the Moiry Glacier diverged from the very summit of the Cornier, and that, by one or other of them, or by the slope between the two, we should be able to get at the highest point. But, in this case, the map does not show its usual minute accuracy, for the two arêtes in question spring, not from the summit of the mountain, but from a point to the north of it, which is connected with the final peak by a jagged arête of rock, broken into teeth precisely like the blade of a saw. A steep ice-slope stretched from our feet to the top of this first point, and so far we could have probably got with some difficulty and much labour, but, the point attained, our progress would have been abruptly checked, as the arête was plainly quite impassable. I saw, therefore, no object in subjecting Almer to a useless fatigue, so, by way of doing something, we turned to the left along the ridge, and walked up to the top of the 'Steinbock,' which was close to, and very slightly higher than, our previous position. By 9.20 we were on its highest point, and our natural annoyance at missing the larger game was quickly forgotten in the contemplation of a view which for grandeur and interest is without a parallel in my Alpine experience. I have seen many more extensive prospects, but extent is but a single and by no means the most important feature of a panorama, and I cannot call to mind having been on any other point (the Gornergrat *not* excepted) from which I have had so perfect a view of so many elevated summits within a reasonable distance.

Looking across the Zinal Glacier, we saw two distinct lines of peaks. In front, the great chain which circles round from the Diablons to the Gabelhorn and Dent Blanche, seen to even more perfection than from below the Pigne de l'Allée, and behind, through gaps in the range of cliffs connecting those peaks, the towering forms of the Dom and Täschhorn, the Rimpfischhorn (which stood out remarkably well exactly above the depression of the Triftjoch), the Strahlhorn, the Nord End and Höchste Spitze of Monte Rosa, and the Lyskamm. The Matterhorn and Dent d'Hérens were completely hidden by the huge mass of the

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Dent Blanche, but, with those exceptions and the Zwillinge and Breithorn, every peak of consequence in the neighbourhood of Zermatt was seen to perfection. Looking south, to the right of the Dent Blanche, across the upper plateau of the Moiry Glacier, we saw straight up the whole length of the great glaciers of Ferpècle and Mont Miné, to a sea of unknown Italian peaks far beyond. Our attention was particularly drawn to the range of the Dents des Bertol on the left bank of the Mont Miné Glacier, which shows at least two very fine isolated peaks, well worthy the attention of mountaineers. But what principally struck us in this quarter was, that a very direct pass might be made from Zermatt to the foot of the Arolla Glacier by mounting to the Col d'Hérens, and thence striking straight across the great field of névé that lies above the Mont Miné to a broad depression in the ridge, overlooking, I imagine, the Glacier de Bertol on the Arolla side, by which the descent could most probably be effected. On the Mont Miné side there would be no difficulty at all, indeed; I never saw so natural a pass, or one so well marked.*[6] Beyond the crowd of considerable peaks that occupy the space between the Val d'Hérens and the Val de Bagnes, the Grand Combin rose conspicuous, while, still more remote, Mont Blanc showed himself pre-eminent over all the lesser summits. Towards the Oberland, the Bietschhorn was the only high peak visible, but the great level expanse of glacier that crowns the cliffs in the neighbourhood of the Wildstrubel was well seen. We were in a most admirable position for studying the northern and southern arêtes of the Rothhorn which fall respectively towards the Schallihorn and Trifthorn. Both appeared to be exceedingly steep and serrated, offering not the slightest chance of a successful attack. Curiously enough the arête that runs up to the summit from Lo Besso, by which the ascent was subsequently effected by Messrs. Stephen and Grove, did not attract our attention at all,[7] probably because it was so immediately in front of us that its lower portion was masked by the lofty peak of Lo Besso itself. Along the left bank of Moiry Glacier there was only one considerable summit, south of the highest point of the

* Mr. H. Walker and I succeeded in effecting this pass, from Zermatt, in 1865, in twelve hours' very slow walking.

Zatalana, that marked on the Federal map 3663 mètres, or 12,018 feet.[8] The connecting ridge showed no well-marked depression, though its general elevation above the glacier was trifling; but, later on in the year, Messrs. Hornby and Philpott made a pass over it from the Val d'Hérens, ascending by a glacier above the Alp des Ros, below Abricolla.

The sky was cloudless, the temperature agreeable, and we should have much liked to make a long halt, but we were anxious to descend to Abricolla and Evolena by the glacier which is represented on the map as running down from the western face of the Cornier and the ridge at the head of the Moiry Glacier, so at 9.30 we quitted our perch. I may mention that my estimate of the merits of the view was fully endorsed by Almer, who ranked it as the finest that even he had ever seen. Nor was this a mere passing impression, for upon every subsequent occasion when we were favoured with a good view, he always brought forward that from the 'Steinbock' as being superior. Running down the gentle slope on the upper plateau of the glacier, we struck straight across for a point considerably to the south of the 3663 mètres peak. It was difficult to say when the highest part of the plateau was crossed, as at the head of the glacier there is no boundary ridge, but, as we were gradually descending, our progress was suddenly arrested by a series of enormous chasms right across our path. We threaded a way carefully between them, Martin manifesting by his nervous clutch of the rope that he did not quite relish the position. But we were almost immediately brought to a full stop by the termination of the gentle slope we had been following, on the brink of a line of perpendicular ice-cliffs, which there was no possibility of descending. We were not much disconcerted by this check, as, on turning round and looking towards the Cornier, we saw that, to all appearance, under the face of that peak the Moiry Glacier was connected with that on to which we wished to descend by undulating fields of névé, exactly as described by the old herdsmen at the Alp. We, accordingly, turned to the left in that direction, and were trotting cheerfully along, unsuspicious of evil, when the névé we were traversing curled slightly over and came to an abrupt termination on the top of a

wall of cliffs, at the base of which, a long way below, we had the pleasure of seeing the lower glacier, stretching in a succession of gentle but rather crevassed snow-slopes towards Abricolla. The apparent connection between the two glaciers is, therefore, an optical delusion of the grossest character, the line of crags being continuous from the Cornier along the whole length of the head of the Moiry Glacier, which is, in fact, supported by them. The state of affairs required consideration, so at 10.5 we took up our position on the highest rocks, and while refreshing the inward man, held a consultation as to what was best to be done.

We by no means despaired of finding a practicable descent down the rocks, so, after hunger was appeased, Almer and Martin started off to see what they could discover, leaving me comfortably settled to study the Dent Blanche, which was close at hand, and the Dent d'Hérens, which was much more distant. The Dent Blanche from here shows as a perfectly symmetrical pyramid of rock, with scarcely any snow upon it. What principally struck me was its solidity and compactness. Unlike most mountains which are formed by a number of ridges, converging to a point, with extensive ravines between them, the faces of this glorious peak appeared perfectly smooth, with corners as sharp and well-defined as the corners of a house, and with none of the usual straggling arêtes. The Dent d'Hérens, too, is a superb object, towering up a worthy rival to the Matterhorn, and, as I looked at its precipitous cliffs, I am afraid I felt horribly envious of Macdonald for his successful attack on the fortress last year.[9] I satisfied myself that from the glacier at our feet the ridge connecting the Grand Cornier with the Dent Blanche might be gained without difficulty, and that from the ridge the former peak was probably accessible, so that Abricolla is apparently the proper basis for an attack.* At 11.0 the men returned and reported that, after descending a considerable distance, they had been compelled to abandon the attempt to force a passage, the rocks being perfectly smooth and absolutely overhanging the glacier at their base, so that a cat could not

* The Grand Cornier was ascended from Zinal in 1865 by Mr. Whymper. He mounted by the eastern arête, and did not think the summit accessible from any other direction.[10]

have found any footing. So far as they could see right and left, the character of the rocks was the same, but Almer suggested that another effort should be made in the same direction we had first tried unsuccessfully, but rather more to the right, as close as possible under peak 3663. We, accordingly, turned towards the desired point, and were again very soon checked by the threatening appearance of the ice. The rope was, therefore, unfastened, and the two men started off with it to see what could be done, while I took my ease on the slopes above. I was rather below the summit-level of the glacier, and, consequently, quite sheltered from the wind, so that I had the full benefit of the sun's rays, which were shooting down with great power. The heat was intense, and, our change of position not having opened out any new object of interest in the panorama, the meditations in which I at first indulged were terminated by my falling asleep. I was awoke with a start by the arrival of the two explorers exactly at noon, with the unwelcome, but scarcely unexpected, intelligence that it was not possible to descend. They had succeeded in getting on to the rocks, but found them of the same impracticable character as before. A person starting from Abricolla, and able to examine the cliffs which support the Moiry Glacier from below, might, perhaps, find a vulnerable point at which to effect the ascent, but all our attempts to find this vulnerable point from above signally failed; nor is greater success likely to reward future comers, at least without a preliminary examination of the ground.[11] I thought that Martin looked rather scared, and Almer afterwards communicated to me that he had chosen the favourable moment when they were standing in steps cut in an almost perpendicular wall of ice, to slip, and had only been held up by a prodigious effort of strength and skill on Almer's part.

Of course, the unexpected failure of our plans was annoying, but it was unavoidable, and the time spent could not be looked upon as thrown away, as, next to showing that there *is* a pass at a particular point, the establishment of the contrary truth is certainly most important. We had no choice but to execute a retreat down the glacier, and we, therefore, set off at 12.10 p.m., with the intention, however, of turning off towards the

supposed pass between the peaks of the Zatalana, and so reaching Evolena. Mounting again to the highest point of the glacier, we followed our morning's route, except that we kept away from the ridge above the Zinal Glacier, and preserved a tolerably direct course without difficulty or incident, until at 12.55 we were once more abreast of the spur running down from the Pigne de l'Allée. It now struck us that the shortest way to get at the lateral glacier up which our desired pass lay would be to cross to the left bank of the main glacier, whence a short descent would bring us down on to the tributary. The only obstacle to this course was the great ice-fall, across which a way would have to be found before the opposite side could be reached. Almer, however, thought that we were above the most dislocated part of the fall, and that we should be able to force a passage without much difficulty, so, turning sharp to the left, we agreed to make the attempt. For a short distance all went well, and we congratulated ourselves on the apparent success of our manœuvre; but, as we advanced, the way became more and more intricate, and the difficulty of keeping the desired direction greater. I could scarcely refrain from roaring with laughter at the expression of intense misery on Martin's countenance when he realised the nature of the work we were undertaking. Nor was the state of his feelings betrayed by his visage only, for his legs actually trembled with nervousness, and, in case of accident, he would have been worse than useless. Still we persevered, creeping along slippery ridges of ice, and once descending right into the bowels of a huge chasm, until we found ourselves fairly brought to a standstill at a point beyond which it seemed that we could not advance in any direction, neither up nor down, nor straightforward. We were surrounded by enormous ice-cliffs and masses of toppling séracs, the passage of which, if possible at all, would have involved an expenditure of time that we could ill-afford, and an amount of risk that we should have been scarcely justified in running. After a careful scrutiny, Almer positively refused, in terms more emphatic than I have often heard him use, to push the attempt any further, so we turned tail, and, carefully retracing our steps, were soon well out of the labyrinth. We struck across the bay

leading to the Col de l'Allée, for the point at which we had first taken to the ice in the morning, but, on reaching it, instead of getting on to the rocks, we kept to the left, and descended in a few minutes to the level glacier below the ice-fall, in a succession of delightful glissades over snow slopes of just the proper steepness and consistency.

We were parched with thirst, and the heat was something fearful, so that, finding some large stones close by a pool of clear water, we sat ourselves down to rest and refresh. The ice-fall was, of course, seen to perfection, and we discovered what a fearful hash we should have made had we persevered in our attempt to cross it. We should never have reached the other side, or, if we could have done so, our last state would have been worse than the first, as we should have been just as far as ever from the lateral glacier, leading to the Zatalana pass. Not that we were much better off, as it was, for we were now so far below the foot of the glacier that the idea of tramping up its whole length before even reaching the foot of the ice-wall, which might give trouble, was most distasteful to all of us, and we finally agreed to change our plans, and make for Evolena by one of several gaps which were visible in the ridge, forming the left bank of the lower portion of the Moiry Glacier. A reference to the map showed that the Col de Zaté, a little north of the Col de Bréonna, offered the most direct route to Evolena, and we, accordingly, resolved upon that line of march.

At 2.30 we resumed our way across the glacier, which was perfectly level and uncrevassed, but of considerable width, and covered to a depth of about two feet with soft snow, into which we sank at every step. The walking was most laborious, and we were sincerely delighted when at 3.0 we got off the ice, and flattered ourselves that our labours for the day were practically over. But we were most miserably deceived, as the piece of work that ensued was without exception the most wearisome and difficult of its kind I ever had the misfortune to go through. Our route lay along the side of a steep slope, covered with débris, stones, and scattered masses of rock. Had the ground been clear, the walking would have been rough, and nothing more, but the whole slope was masked by a layer of deep snow

thoroughly softened by the sun, effectually concealing what lay beneath. The consequence was that we were in a state of blissful ignorance as to whether we were treading on an insecure rock, firm ground, or, as was more common, nothing at all, in which case we were immersed with a jerk, up to our middles, and sometimes almost up to our necks, in a cavity between two rocks, while, occasionally, to vary the amusement, the hole was, perhaps, only big enough to let one leg in, rubbing off a goodly portion of the skin in the operation. Passing underneath a small glacier leading up to a gap in the ridge, 9886 feet in height,[12] immediately south of the Couronne de Bréonna, we steered for a point high up on a projecting spur from that peak, and, having with infinite labour and trouble reached it, found ourselves near the head of a broad glen, giving access to two passes, one close at hand, under the Couronne—the Col de Bréonna, the other at the northern corner of the glen, separated from us by a considerable expanse of snow[13]—the Col de Zaté. We were so sick of the snow-wading that without hesitation we turned towards the nearest pass, and, after a short plod through the snow, stood at 4.15 in the gap of the Col de Bréonna, 9574 feet in height, considering its elevation, one of the least steep passes I ever crossed, the final ascent being very gentle.

The view was not very extensive, but comprised the ice-falls of the Ferpècle and Mont Miné Glaciers, and straight opposite, near the head of the Combe d'Arolla, or western arm of the Val d'Hérens, an exceedingly lofty and bold rocky peak, which we supposed to be the Pigne d'Arolla, 12,473 feet. An easy descent over slopes of shale and stones, nearly bare of snow, led us down into a dreary glen, enclosed on the south and east by the bold precipices of the Couronne de Bréonna, but otherwise of the most uninteresting character. We soon hit upon a faint track, which brought us over almost level ground to the chalets on the Bréonna Alp at 5.15. The chalets are well situated on the brow of the steep descent into the Val d'Hérens, and were occupied, but we were unable to get any milk in consequence of the afternoon supply not having yet been brought in. The herdsmen, however, gave us information as to the best

line of route to reach Evolena, furnished with which we hurried on, but contrived, when not far above the valley, to get out of the proper track, and take to one which kept much too high up along the hill-side. Moreover, it was exceedingly rough, being composed of mud, stones, and watercourses in about equal proportions. It tried our temper severely, and crowned its iniquities by suddenly coming to an untimely end, leaving us to find our way down to the main road as best we could. A rough scramble, however, led us into a tolerable track at a lower level, which in due course formed a junction with the regular mule-path down the valley, and, that once gained, our troubles were over. On our way we met a native, who informed us that four tourists had arrived during the day, and answered, in reply to my inquiry as to whether they were English, that he did not think so, as they had walked in, singing republican songs, a response which, I think, said a good deal for his sagacity. We arrived at the Hotel de la Dent Blanche at Evolena at 6.35 p.m., and the four tourists resolved themselves into four Parisians, the noisiest and most unpleasant individuals I ever encountered, who, with a quiet German, were the only other visitors in the house. I was served with a tolerable dinner after a long delay, and took myself off to bed soon after I had done justice to it, there being no inducement to prolong the evening.[14]

Saturday, 9th July.—The idea did not occur to me at the time, but I have never ceased regretting that I did not make an early start this morning for Abricolla, and attack the Grand Cornier from there, instead of lying in bed till 9.30 a.m., and passing the whole of a fine day in slippers and idleness. When I at last made my way down to breakfast, I found that I had the place to myself, the Parisians having gone off at an early hour for the Col d'Hérens, and the German on a botanising expedition. Martin had returned to Zinal, and Almer was invisible. I should have been rather hard-up for amusement, had I not luckily found in the salon a volume of *Adam Bede*, armed with which I sallied forth, and took up a position in the woods on the other, or left, side of the stream, where I remained till 3.0 p.m., reading and contemplating the Dent Blanche, which was well seen. At that hour I descended from my perch, and,

returning to the hotel, found, to my infinite joy, that Morshead and Perren had arrived from Zermatt over the Col d'Hérens, Gaskell having been left at Zermatt. We had, of course, ample topics of conversation, and the time till dinner passed most agreeably in discussing our mutual adventures since leaving Paris. Circumstances, and especially very bad weather, with which, unlike myself, he had been persecuted, had prevented Morshead accomplishing much glacier work, but he had traversed an immense extent of country, and shown Gaskell some of the least frequented districts of the Alps.

As we were sitting outside the inn after dinner, we saw a party of men coming down the valley, who turned out to be the four Parisians and their guides, who, having reached the top of the Col d'Hérens, had funked the descent on to the Zmutt Glacier. Their guides had in vain attempted to persuade them to go on, pointing out Morshead's fresh traces, on seeing which, they merely replied, 'Nous ne sommes pas des Anglais,' and toiled through the soft snow again all the way back to Evolena. We could not restrain our mirth, and Perren, after listening to the head man of the four discoursing on the subject of the perils they had undergone, said to their faces, with more point than politeness, 'Mais, Monsieur, vous êtes fous!' I never saw men look so small, and their behaviour was very different from that of last night, no republican songs, no jocosity with the waitress over their supper, in fact, not a word, until they finally retired to bed with their tails between their legs.

NOTES TO CHAPTER VIII

[1] This pass is known as the Col de Couronne, 9895 feet; but the herdsman's description of it hardly corresponds with that in the *Climbers' Guide*, p. 86. It is at the head of the small triangular glacier below the word Couronne in the map. The long ridge to the south of it is the Za de l'Ano, and there does not seem to be any crossing at the head of the large lateral glacier where the words 'Col Zatalana' are printed.

[2] There is no indication in the *Climbers' Guide* (Central Pennines) that this pass has been made, although I know of no special difficulty about it.

[3] The Col de l'Allée, 10,170 feet.

[4] The point 3484 mètres is the 'Steinbock' or, as it is now called on the Swiss map, the Bouquetin. Between this and the Grand Cornier is another

point, 3643 mètres (11,297 feet), which is nameless. Both points are very visible from the valley, or from neighbouring heights, as they project forward from the regular line of the cliffs; but they appear very insignificant and slightly marked to any one actually on the snow-field of which they form a part. They are both seen in Plate IX. (of which see description), and also in the heading to chapter viii. There can be no doubt that the view point which charmed Moore and Almer so greatly was the higher point of 3643 mètres. This is made certain by the fact that he saw the Dents des Bertol and the Col de Bertol from it over the head of the Moiry Glacier. This latter is almost exactly 3600 mètres at its lowest point, the Dents des Bertol are 3556 metres, and the Steinbock is 3484 mètres. From the latter it is physically impossible, therefore, to see the Bertol peaks, but they are quite visible from the higher point, which is about 150 feet higher than (instead of about 400 feet lower than) the head of the Moiry Glacier. If only the names of climbers were given to peaks in Switzerland (as in Dauphiny and in the Graians, for example), this little point might well be called after the climber who so enthusiastically admired the view from it, in spite of the fact that the visit to it formed part of one of his very few unsuccessful expeditions.

Oddly enough the dotted line on the map, intended roughly to indicate the route, shows that the top of the rocks was touched, not at the Steinbock itself, but at a point considerably further south, not so very far from the actual position of the 'Pointe de Moore'; and the route marked on Moore's own $\frac{1}{50000}$ map, which I have had the opportunity of examining, shows conclusively that he went round behind the Steinbock, and touched the ridge again just at the point 3643 mètres.

[5] This wall of rock is that seen in Plate IX.

[6] This is now known as the Col de Bertol (11,200 feet), and has become a much frequented pass; indeed, a hut was built on some rocks immediately above the Col about three years ago. The walk from Arolla to Zermatt across the Cols de Bertol and d'Hérens is one of the finest of the easy snow passes in the Alps, and forms the last link of the *High Level Route* (p. 181). It is more interesting and not much longer than the crossing of the Col d'Hérens only from Ferpècle to Zermatt. It is less desirable to make the pass in the opposite direction, as the long snow-fields between the two Cols are apt to be tiresome as soon as the sun is on them.

[7] There is a little mistake here. The exciting part of Messrs. Leslie Stephen and Grove's climb (see *The Playground of Europe*, p. 88) was entirely on the northern arête of the Rothhorn, which is certainly to be correctly described as 'exceedingly serrated.' The beautiful snow ridge (known as 'le Blanc') connecting the northern end of the arête with the Besso, is almost straight in line with Moore's point of view, and would therefore not be conspicuous. In fact, however, the whole of Stephen's route from the Mountet Hut (which itself, of course, had no existence in 1864) to the summit is visible from the point 3643 mètres.

The following transcription of the entry in the Zinal Visitors' Book may be interesting to climbers:—

'1864, *August* 22.—F. Crauford Grove, Leslie Stephen. Ascended the Rothhorn (the first ascent). Left this house 1.50 a.m., followed the route to the Trift Joch till above the ice fall of the Durand Glacier, then turned to the left, and reached the Col overlooking the Moming Glacier at 7.55. Reached the summit by the northern arête at 11.15. The last two hours of the route lay over rocks of greater difficulty than either of us remembers to have seen elsewhere. Returned to this house at 6.45. Guides, Melchior and Jacob Anderegg of Meyringen, both of whom behaved admirably.'

[8] This is now known as the *Pointe de Bricolla*, but has no name on Moore's map.

[9] For an account of this expedition, see the *Alpine Journal*, vol. i. p. 209.

[10] For Mr. Whymper's first ascent of the Grand Cornier, see *Scrambles in the Alps*, p. 263. As to his route, see description of Plate IX. It has since been ascended by three other routes, and is a fine climb however it is taken. Moore's attempted route was not climbed until 1873. The route suggested by Moore, *i.e.* from the Col between the Grand Cornier and the Dent Blanche, was first successfully followed in 1879.

[11] I cannot find at what date this pass was first crossed. It is known as the Col de Pointe de Bricolla, its height being about 3600 mètres (see note 4 above). From the lowest point of the snow Col a traverse is made to the right over the rocks of the Pointe de Bricolla, and then a rock gully is descended to the névé below. The route would be, as Moore says, much more easily found from below on the Bricolla side than from the top.

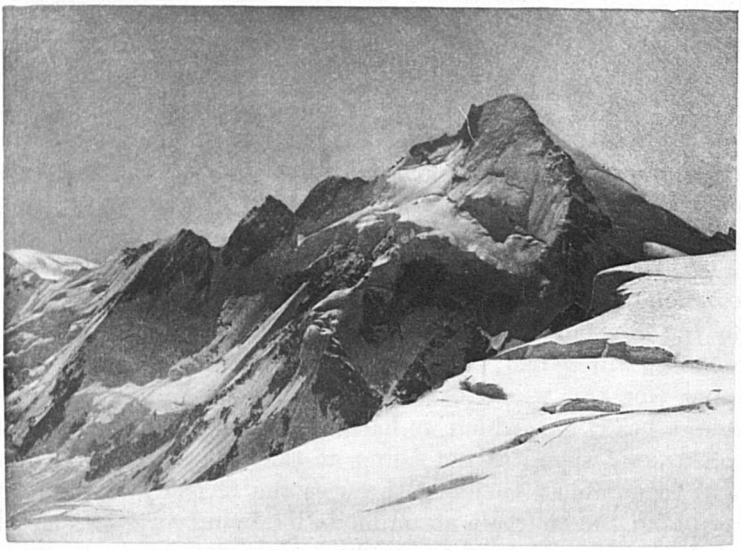
[12] This is the Col de Couronne. See note 1 above.

[13] In August all these passes are free from snow, and are apt to be very hot, dry, stony, and uninteresting. It will be remembered that Moore is still in early July.

[14] The following is a copy, from the Zinal Visitors' Book, of an entry made by Moore relative to this expedition when he reached Zinal a few days later.

'1864, 16*th July*.—A. W. Moore, A. C. London. From Gruben in the Turtman Thal, by the Meiden Pass. Travellers who may not intend to ascend the Bella Tola are recommended to climb a rocky point north of the Col, which commands a good view of the Oberland, and a superb one of the Saas Grat, and the mountains at the head of the valleys of Turtman, Anniviers, and Hérens. The climb only occupies thirty minutes, and, with the exception of the last 40 feet, which is a stiff scramble, presents no difficulty. On the morning of the 8th instant I left some chalets near the foot of the Col Torrent in the Val Moiry to attempt the ascent of the Grand Cornier, with Christian Almer and Jean Martin of Vissoye. We mounted along the right bank of the magnificent, but previously untraversed, Glacier de Moiry (walking for some distance along the very top of the precipices overhanging the Zinal Glacier), until we reached the base of the final peak, which proved to be utterly impracticable. We therefore ascended easily a point immediately to the north of it, which is marked on the Federal map 3484 mètres (11,432 English feet), and is known to the natives as "Steinbock." The view from this point is one of the grandest I have seen in the

Alps, and I particularly wish to direct the attention of pedestrians visiting this place to it, as it can also be ascended from here, without difficulty, by mounting to the Col de l'Allée, which leads to the central portion of the Glacier de Moiry. The only point from which the Grand Cornier (13,021 English feet) can be attacked with the faintest chance of success is from Abricolla, by an extensive glacier which flows down to that place from the western face of the peak. We spent two and a half hours in futile endeavours to descend on to this glacier from the head of the Glacier de Moiry, and so reach Abricolla, but the precipices, on which the upper névé of the latter glacier is elevated, are so steep, especially at their base, as to be quite impracticable. It is quite possible, however, to traverse the glacier above referred to, starting from Abricolla, and gain the ridge connecting the Cornier and Dent Blanche, *close* under the former peak, which it appeared to Almer *might* be accessible from it. Jean Martin of Vissoye is not a bad man to take as *second* on expeditions in this neighbourhood; he is active, willing, and good-humoured, a good cragsman, and will doubtless improve on ice.'



CHAPTER IX

THE COL D'HÉRENS

Sunday, 10th July.—I am ashamed to confess that it was again very late before we descended to breakfast, but, so soon as that meal was over, we summoned the guides, and held a council of war as to our future proceedings. Our plan was to go up in the afternoon to Abricolla, and to-morrow ascend the Dent Blanche, making a desperate push to get over the Col d'Hérens to Zermatt the same evening. There were two impediments to the realisation of this admirable project. First and foremost the appearance of the weather was very threatening, and we utterly failed in our attempts to persuade ourselves that it would certainly be fine. And, secondly, the little inn at Abricolla had been accidentally burnt down about ten days before, and there was no accommodation of any sort in the still unoccupied chalets adjoining. Towards removing the first impediment *we* could, of course, do nothing, but the second was soon got over by the appearance of the proprietor of the defunct inn, who announced that he had two beds 'bien propres' in the chalets

at the foot of the Ferpècle Glacier, which, with other articles, he would transport on a mule to one of the chalets at the higher station, an offer which we at once jumped at, but told him that we would dispense with the coverings of the beds and their probable inhabitants, and content ourselves with the mattresses. We dined at 1.0 p.m. with the intention of getting off at 2.0, but there were more than the usual delays, and it was 3.5 before we managed to effect a start, after baffling a gross attempt at extortion on the part of the landlord. He calmly charged in the bill for our provisions three francs each for two skinny chickens, which had been sent up as the final course of our dinner (for the whole of which we were only charged three francs a head), and which we had ordered to be put aside to take with us, our appetites not being at the time sufficiently keen for us to demolish them. Otherwise the charges were not unreasonable, the bedroom accommodation being very comfortable, and the *cuisine* as good as can be expected in such an out-of-the-way and comparatively unfrequented spot.

The scenery of the Val d'Hérens above Evolena, though pleasing, is not remarkable, the only high peak visible being the Dent Blanche, and that not seen to great advantage. At 3.55 we passed through the hamlet of Haudères, at the junction of the two branches of the valley, leading respectively to the Glaciers of Ferpècle and Arolla, over which latter goes the pass of the Col Collon to the Valpelline and Aosta, a route far less frequented than that of the Col d'Hérens, which, after having for many years been considered one of the most difficult, is now recognised as one of the easiest of the high glacier passes. Above Haudères, the path becomes rapidly steeper and the valley much narrower, being in many places reduced to a mere ravine, through which the torrent thunders along at a tremendous pace. We did not keep to the mule-path, but followed divers by-ways known to Perren, which, doubtless shortened the road somewhat, but were rougher and more laborious than the regular track. We were much struck by the appearance of the forests through which we passed. The trees all appeared to be dying by inches, gradually fading away, so that there was scarcely a single one with a healthy, vigorous

aspect. As we advanced the weather became worse, until at 5.0 p.m., just as we reached the chalets of Sales, close to the foot of the Ferpècle Glacier, down came the rain and drove us in for shelter. We must have waited anyhow, as our native, of course, had nothing ready, and it took some time to arrange and pack on the mule's back the two beds ('bien propres') and other articles that had to be taken up with us. The natives were very civil, and gave us unlimited milk, while a pack of children surrounded us, watching our every movement with an interest and apparent amusement quite refreshing. Although, like their parents and dwelling-place, sadly dirty, they were the prettiest and most rosy-faced children I have ever seen in the Alps, but dressed exactly like miniature old men and women, according to the custom of the country.

By 5.50 the rain had ceased, and the mule being ready, we set off again, our *cortège* being further increased by a small boy, laden with a pail of milk, who was also to accompany the mule down again. We at once began a rapid ascent, in order to get above the Ferpècle Glacier, the lower end of which showed itself close in front in the shape of a very steep and lofty bank of ice, seamed by longitudinal crevasses, but tolerably free from moraine. From the path there was a very good view of the great ice-falls of both branches, the Ferpècle proper and the Mont Miné, and it was curious to observe how, even below the junction at the foot of the rocks of the Mont Miné, the two streams, though forced to flow side by side, declined to coalesce, and remained to the very end distinct, yet united. The path, though exceedingly rough, was good enough for bipeds, but there were some places where I blessed my stars that I was not a quadruped, especially a laden one. Our animal, however, managed very well, and displayed especial dexterity in the passage of several swollen torrents that lay in our way, where the streams were rapid and the footing, for both man and beast, decidedly bad. We remained at a great elevation above the glacier, the ice-fall of which was a superb object, of considerable width and very steep and broken; in spite of the absence of sun, the glacier was by no means quiescent, and we saw several pinnacles topple over, and heard the crash of many

more. Nothing could be more barren and dreary than the ground over which we passed. There was neither tree nor shrub to relieve the desolation, and we were by no means sorry when at 7.10 p.m. we reached Abricolla, our destination for the night.

Not that the aspect of the place was particularly exhilarating, the most conspicuous object being the ruined inn, which was completely gutted, the charred walls being alone left standing. Nor were the surrounding chalets much more inviting as sleeping quarters. The most decent one was in a rather dilapidated state as regarded the roof, while the wind whistled cheerfully through the ample chinks in the walls, and the floor was sodden with melted snow, which could not have long disappeared. However, we had to make the best of it, so the traps were deposited, the mule sent away, and the men set to work to light a fire with wood brought up for the purpose, and generally make things as comfortable as circumstances permitted. Shortly after our arrival the weather showed signs of improvement, and allowed us to get an almost cloudless view of the Dent Blanche, which rises majestically immediately behind the chalets, a vision which raised our hopes, and sent us into supper feeling more sanguine than we had been all day. Some excellent chocolate was brewed, and, after its consumption, Morshead and I retired to one of the mattresses 'bien propres,' and, covered with my plaid, composed ourselves for slumber. It was not long before we began to entertain doubts as to what the interpretation of the word 'propre' might be in the Val d'Hérens, and the painful conviction at last forced itself on our minds that it must mean 'unlimited fleas'; at any rate, the gambols and displays of entomological agility that went on about our bodies were rather remarkable, but, though doubtless agreeable and exciting to the actors, were the reverse of pleasant to the passive victims. Shortly after we lay down, the wind got up. The ominous moaning, which was first all that was audible, deepened to a roar, until a furious hurricane was raging, and our refuge shook under the tremendous blasts that surged against its walls, and occasionally threatened to sweep it away bodily. We felt that

things must improve materially before morning if we were to do anything, as the passage of the arête of the Dent Blanche was not to be thought of in such a wind. We could not help fearing that the mountain was making ready its batteries to baffle our enterprise, and that altogether our prospects were decidedly shady. Bodily and mental discomfort, therefore, combined to keep us awake, and I lay for a long time listening to the crackling of the fire and the snoring of one or other of the guides, until I at last fell asleep, and for the time forgot our anxieties.

Monday, 11th July.—During intervals of wakefulness, the roaring of the storm without was painfully audible, so that when we roused ourselves at 1.20 a.m., and went to the door to reconnoitre, we were not surprised to find the appearance of the weather as unpromising as it well could be. The sky was altogether obscured, and the valley below was filled with heavy clouds, while the wind, although it had somewhat subsided, blew in fitful gusts of great violence. In anticipation of a start, the fire had been made up, and some chocolate prepared, which we, therefore, drank, and then stood at the entrance of the chalet, hesitating what to do, until the question was summarily settled by the rain beginning to come down heavily, when, of course, we had no choice but to remain where we were for the present. Our mattress was under a part of the roof that was anything but water-tight, so it was moved to a more eligible position, and we again delivered ourselves over to our tormentors, who took their revenge for their enforced temporary abstinence, by a series of attacks of the most voracious character. However, the move had made me more sleepy than I had been before, and I got two hours and a half of sound and unbroken slumber till 4.15, when we once more got up, and found a dull, cloudy morning, which might or might not improve. The rain had temporarily ceased, but the wind was still uncomfortably high. The Dent Blanche was out of the question, and, as we had no wish either to vegetate all day at Abricolla, or descend to Evolena and return in the evening for a second night of persecution, and possibly similar discomfiture in the morning, we determined to leave the peak for more

fortunate adventures, and cross at once to Zermatt by the Col d'Hérens. This course was the more advisable, as, after the considerable amount of fresh snow that had fallen in the night, we felt that the long arête of the mountain, difficult enough at the best of times, would, probably, be found almost impracticable. Accordingly, after discussing some hot wine and the usual bread and butter, we paid the native for our accommodation, adding, as may be easily believed, an extra franc or two in consideration of the mattresses having been found so *bien propre*, and, bestowing a parting benediction on the fleas, took our departure at 4.50 a.m. in a state of mind the reverse of jovial, the guides being quite as much 'in the dumps' as we were, Almer, especially, having been most anxious to effect the conquest of the Dent, whose summit is almost a virgin one.* Picking our way over gentle slopes of rough herbage, débris, and stones, varied by occasional patches of snow, and succeeded in due course by a nasty moraine, we came at 5.40 to the edge of an extensive glacier, which falls away in easy slopes from the ridge of the Wandfluh on our left, towards the Ferpècle Glacier below, which, however, it does not quite touch. Across this lay our route towards a point on the opposite side, where it merges in the great field of névé which supplies the main stream of the Ferpècle. Nothing can be imagined more superb than the great central ice-fall of the Ferpècle Glacier, as seen from this part of the route. Its breadth is very great, and, for dislocation, it will bear comparison with any in the Alps. Rumour has it that, upon one occasion, when Mons. Seiler of Zermatt was crossing the Col d'Hérens, he missed his way in a fog, and got entangled in this labyrinth of séracs, but history does not say how on earth he ever got out again. That he did so, however, his pleasant presence at the Monte Rosa Hotel testifies. The slopes were for some distance rather steep and crevassed, and the walking would have been laborious, if we had not had the benefit of the steps made by the four Parisians on Saturday. As we utilised the results of their fruitless toils, we felt more amiably disposed towards them than before, but could not

* The first ascent was made in 1862 by Messrs. Kennedy and Wigram; the second in 1864 by Mr. Finlaison; and the third in 1865 by Mr. Whymper.

help laughing at the idea of what they must have undergone, mentally and bodily, while they plodded back late in the afternoon over the thoroughly softened snow-fields. The depth of the steps was pretty good evidence of what the poor misguided creatures must have suffered, but they saved us a good deal of trouble, and we were able to get along quicker than we could otherwise have done. Just above the head of the ice-fall, a long wall of rocks showed itself through the névé, between which and a spur from the Wandfluh we had to pass. This is known as the Motta Rotta, though the name is not admitted on the map, and so soon as we were abreast of it, the steepest part of the way on this side was done, the snow-slopes giving place to a broad expanse of névé which stretched away in front for an almost illimitable distance.

The weather, by no means perfect, had cleared sufficiently to enable us to get a view of the surrounding scenery, though the tops of the neighbouring mountains were still invisible. The greater part of the arête of the Dent Blanche, extending from the very summit of the mountain to the Col d'Hérens, which, in fact, passes over its lowest point, where it begins to rise again towards the Tête Blanche, was well seen, and we paid particular attention to it as we passed along right underneath its base. The arête is of immense length, but, for a long distance, not very steep, the total rise along five-sixths of the length being no greater than that along the remaining sixth to the summit, or, respectively, 1418 and 1483 feet. But it is fearfully narrow, appearing in many places to be a mere knife-edge of rock, and broken by a succession of natural stonemen, which alone must be almost insuperable obstacles to progress along it. One of these, certainly, is reported by all who have ever reached so high a point to be quite impassable; and, to turn it, it is necessary to get down on to and skirt the slope below, an operation involving considerable danger, except when the snow is in an unusually perfect condition. Altogether, I never saw an uglier-looking place, and, unless the actual difficulties are very much less than they appear from a distance, the ascent must be one of the most formidable in the Alps.

While making our observation, we pushed on steadily

towards the slight depression in the edge of the snow-field, which marked the position of the pass, but without apparently diminishing the distance between us and it. In cloudless weather, of course, the route might be more interesting, but under the most favourable circumstances this portion of the way cannot be otherwise than monotonous, the absence of difficulty being complete, and the extent of snow to be traversed very great. Perren pounded along doggedly, and we followed in his steps in a somewhat apathetic frame of mind, wondering for how long the amusement was going to last, and steadfastly refraining from looking forward to the desired point, until at 7.45 a.m., or in rather less than three hours from Abricolla, our speculations were cut short, and our hearts rejoiced by our arrival at the Col, 11,418 feet in height. We fixed ourselves in a nook in the rocks, and prepared to feed, and contemplate so much of the view as was vouchsafed to us, which was not much. At our feet was the upper névé of the Zmutt Glacier,—to the north of it a deep bay filled by the Schönbühl Glacier, running far back into the recesses of the Dent Blanche, which was tolerably clear,—and to the south the immense wall of cliffs forming the bases of the Dent d'Hérens and the glorious Matterhorn,[1] whose summits were still enveloped in mists. The same may be said of the Gabelhorn[2] and its neighbours, and the greater part of the Monte Rosa chain, but the long, serpentine Findelen Glacier, and the peaks of the Strahlhorn and Rimpfischhorn at its head, were entirely uncovered and seen to great advantage. Towards the Oberland, the weather was rather better, and gave us cause to hope that the improvement would later extend to our own district. We had a good view of the snowy groups of the Diablerets, Wildhorn, and Wildstrubel, the great glacier plateau, out of which the latter peak rises, being especially striking.[3]

Below the Col d'Hérens the precipitous face of the Wandfluh does not exceed 200 feet in height, and is masked by an exceedingly steep slope of snow, cut off by the usual bergschrund from the smooth snow-fields below. It was this, to the uninitiated, rather formidable-looking curtain, which had excited the fears of the luckless Parisians, and sent them in

hot haste back to Evolena, and down it we, at 8.5, started to find a passage. Following the course adopted by Morshead and Perren in ascending on Saturday, we bore away for a short distance to the right along the exposed face of the rocks, the men being rather afraid of avalanches on the upper part of the slope, which was steepest immediately below the Col. The ledges along which we had to descend were very narrow and rather slippery with snow, so that care was undoubtedly necessary in passing them, but there was no serious difficulty, and getting off them, on to the slope below, at a point where it was less steep than elsewhere, we worked rapidly down to the bergschrund, the dimensions of which were insignificant, and dropped over it on to the plateau beneath. A broad expanse of rather crevassed névé lay between us and the low point of black rock, which marked the summit of the Stockje, or buttress, which supports the northern arm of the Zmutt Glacier, and raises it to a considerable height above the southern, or Tiefenmatten branch, under the cliffs of the Dent d'Hérens. Across this Perren led us at a tremendous pace, notwithstanding the extreme softness of the snow, into which we sank at every step above our knees. The length of his strides was something enormous; indeed, he went bounding along with an agility I should not have given his somewhat unwieldy frame credit for, and which was worthy of a chamois, an animal of which for the time he might be considered a somewhat corpulent representative. It is rather curious that the concealed crevasses, by which the whole plateau is more or less undermined, are most numerous and complicated quite close to the rocks of the Stockje, and that the greatest care is necessary just when all danger might be considered over. As it was, when we were within ten yards of the rocks, every one of the party in succession went through into a chasm, of course with no evil result, all being roped together; but a party ascending from Zermatt, ignorant of this peculiarity, might very easily neglect to get into harness before stepping on to the snow, and come to serious grief in consequence.

At 8.50 we got on to the rocks, which fall away steeply towards the lower glacier, and halted for five minutes to take

off the rope, the further use of which could be dispensed with. The rocks are very shaly and easy, and we descended them rapidly until we were not far above the lower glacier, which, although quite practicable, appeared to be more crevassed than usual, and induced us not to follow the usual plan of getting off the rocks at their western end, but to keep along the face of the cliffs to their opposite extremity. There was not the slightest difficulty in this operation, but the slope was steep, there were some rather awkward steps, and the glacier was below, ready to receive all waifs and strays, so that a certain amount of care was necessary to avoid a bad slip. At 9.30 we got down into a curious hollow, filled with old avalanche snow, between the base of the rocks and the moraine of the glacier, and, passing along this, above a little lake, filled with exceedingly dirty water, we emerged at 10.40 on to the smooth ice, and had a long stretch of almost level glacier before us. In spite of the easy and straightforward character of the way, we did not find the walking over the Zmutt Glacier by any means agreeable, the ice being very hummocky, and, in many places, slushy, so that we were often plunged in a mixture of snow and water above our ankles, to the damage both of our boots and our tempers. Clouds, too, still enveloped the upper portions of the Matterhorn and Dent d'Hérens, but the Gabelhorn, on the opposite side of the glacier, was quite clear, and stood up exceedingly well. The height of this peak, 13,364 feet (now, since the ascent of the Rothhorn, the only considerable summit near Zermatt that remains unscaled, the Matterhorn, of course, excepted), renders it well worthy of attack, but its conquest will be no easy task. From Zermatt itself I don't think there is much chance of success, nor is the appearance of the mountain from Zinal more promising. But, if ever I was to make an attempt myself, I should probably fix on that place as my basis of operations.*

* Subsequent observations made me change my opinion on this point. In 1865 Mr. H. Walker and I, starting from Zermatt, made the first ascent of the Gabelhorn. We ascended the southern branch of the Trift Glacier, and the wall at its head, to the north-eastern arête of the mountain, which we followed to the summit. The next day the late Lord F. Douglas climbed the peak from Zinal, with much greater difficulty than *we* had experienced, and descended by our route.

THE MATTERHORN FROM THE TIEFENMATTEN GLACIER.

We kept straight down the centre of the glacier, much lower down than the point where it is usual to quit it, having hit upon a narrow strip of clear ice, in the middle of the enormous expanse of moraine, which offered us a tolerably smooth pathway. But, after a hard struggle, the ice succumbed to the moraine and disappeared, whereupon we bore away, over the mass of stones of all sizes and hues, towards the right bank of the glacier, which we reached at 10.40 a.m.

A rough track, passing for a short distance beneath a considerable glacier which hangs from the side of the Matterhorn, and occasionally discharges masses of ice over the edge of the cliffs on which it terminates, led us by 11.0 to the dirty and unoccupied chalets of Zmutt, situated a little below the foot of the glacier. We were here overtaken by a violent rain-storm, which wetted us thoroughly, but it appeared to be a final spiteful effort on the part of the weather, which thenceforward steadily improved, until there was scarcely a cloud visible in the sky. There is not a more delightful walk near Zermatt than that through the gorge of the Zmuttbach, down which Morshead now led us at a tremendous pace. The path passes through luxuriant woods along the right bank of the stream, then crosses by a wooden bridge over a wonderful ravine, a mere cleft in the rocks, to the left bank, whence it traverses open meadows, until it falls into the path leading to the Gorner Glacier. At 12.5 p.m. we entered the Monte Rosa Hotel at Zermatt, having accomplished the distance from Abricolla in six hours and three-quarters' actual walking—not bad work, considering that we had not exerted ourselves to travel fast.

In the *salle-à-manger* we were rejoiced to find Miss Walker, who, with her father, had last week effected the ascent of the Grand Combin, and traversed the high level route from St. Pierre to Zermatt. I was very sorry to hear that Horace Walker was 'hors de combat.' The weakness in his knee, which had first troubled him when we were descending from the Col des Encombres, had become much worse later, and, after struggling up the Combin, he had been compelled to retreat for medical advice to Vevey, where he still remained. Morshead and I held a council as to how we should employ our time till

Friday, when we intended to cross from Randa to the Turtman Thal by the Bies and Turtman Glaciers. Our original intention had been to do the Weisshorn, but, owing to the immense quantity of snow, an attack on that mountain would be a mere fruitless expenditure of time, without prospect of success, so we gave it up, and determined to devote the morrow to the ascent of the Rimpfischhorn. I had long had a strong desire to ascend this peak, which was conquered by the Rev. Leslie Stephen in 1859, but had never been visited since,—a neglect quite unaccountable, as its position is most favourable for a panoramic view, and it is one of the few summits accessible from the village of Zermatt itself, without the necessity of going up to the Riffel. Morshead readily acquiesced in my suggestion, as Gaskell was going up Monte Rosa with some friends he had found at the Mont Cervin Hotel, and, when Mr. Walker came in from an expedition up the Gorner Glacier, he and his daughter were persuaded to join us, an arrangement which was not only most agreeable to us, but highly advantageous, as we should have the services of Melchior, who had made the ascent with Stephen. An afternoon at Zermatt is always agreeable, and the hours before dinner flew rapidly by. Afterwards we did not keep late hours, the weather giving us every reason to believe that we should have no excuse for shirking an early start in the morning.

NOTES TO CHAPTER IX

[1] Plate X. is a view of the Matterhorn from a point on the névé of the Tiefenmatten Glacier, about the level of the top of the Stockje rocks, and differing only in its foreground from the view of the mountain from the Col d'Hérens. (See description of plate.)

[2] See plate heading this chapter.

[3] No one who is interested in the Col d'Hérens and the view from it should omit to read Professor Forbes's description of his crossing of the pass, and of the view from the snow hummock above it, which he called the Stockhorn. The view is one of the most glorious of all Alpine landscapes, and does not diminish in fascination—at least in the writer's experience—after many visits. (See Forbes's *Travels through the Alps*, chap. xvi., and *Tour of Mont Blanc*, chap. x.)

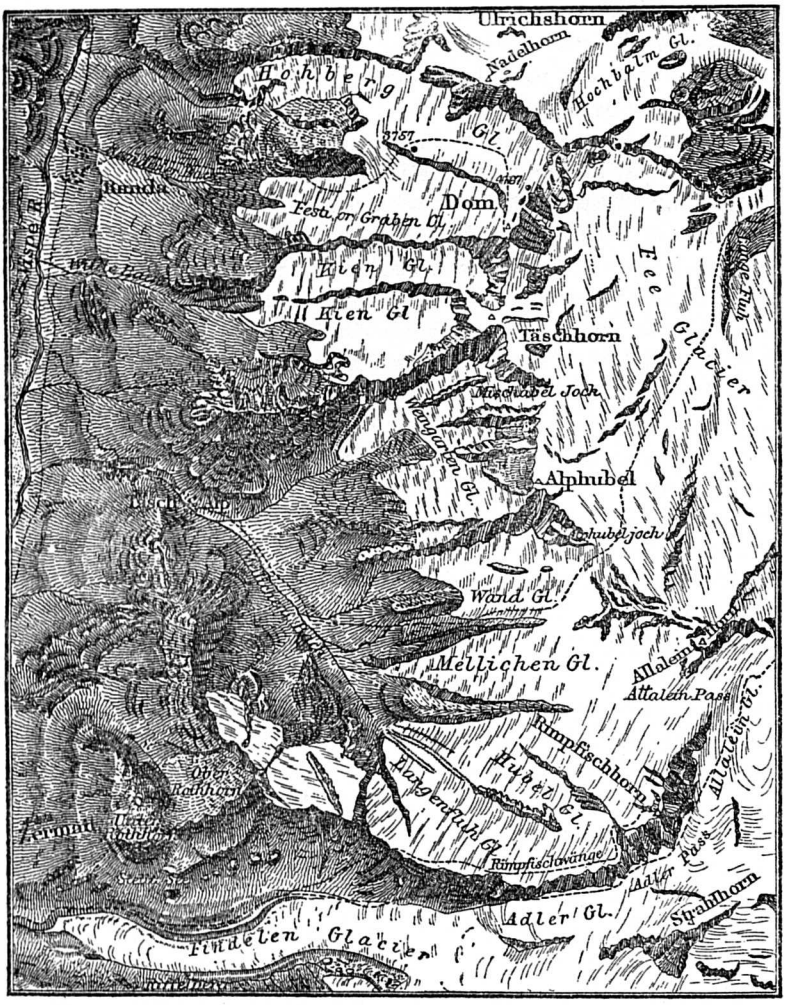
CHAPTER X

THE RIMPFISCHHORN AND THE DOM

Tuesday, 12th July.—We were called at 1.0 a.m., with the pleasing announcement of a fine morning, and, after the usual solemn and dreary meal, called by courtesy breakfast, started at 2.15, attended by Almer, Melchior, and his cousin Jacob Anderegg, a fine, handsome, fair man, with a profusion of beard, and apparently as strong as a horse. Perren was not with us, having to accompany Gaskell and his party up Monte Rosa. Miss Walker was mounted on a mule, which she intended to take as far as the path was sufficiently good, very wisely wishing to avoid unnecessary fatigue before the commencement of the real work of the day. We were, therefore, rather an imposing procession, or should have been had it not been so dark that we could scarcely see each other, the single lantern necessarily being carried in front, so as to show the way for the mule. Crossing the bridge leading to Winkelmatten and the Riffel, we turned up to the left into the pine-woods through which the path to the Findelen Glacier and Adler Pass is

carried, as along it as far as the Stelli See lay our route. The darkness, bad enough below, was here, of course, intensified, but the mule climbed along the steep track as rapidly as though it had been broad daylight, performing in the effort a series of gymnastics, during the execution of which I should have strongly objected to be on his back. I had always imagined that a man could go up hill faster than a laden mule, but was for ever cured of the delusion by the performances of our animal, who cleared the ground at a pace which would have soon left us far behind had not he been compelled to halt occasionally at the foot of a bit steeper than usual, to gather himself together for the effort necessary to carry him to the top. We were rather uneasy about the weather, the appearance of which had changed for the worse since we were called, the sky being now partially obscured by clouds, which emitted occasional flashes of lightning, threatening an impending storm.

Once out of the wood and fairly in the gorge of the Findelenbach, our way was easy and pleasant enough, a level and good path conducting us to the chalets on the Eggen Alp, the occupants of which were still buried in slumber, and, therefore, for the moment, objects of envy to us poor wandering mortals. There was by this time daylight enough for us to be able to study the grand view of the Matterhorn behind us. From this direction it appears to almost greater advantage than from any other point, and now displayed itself to us with more snow on its rugged flanks than I ever before saw, a vision which quite confirmed the wisdom of our decision, not to waste time on the Weisshorn. We soon passed the end of the Findelen Glacier, which terminates in a remarkably smooth and pure convex slope of ice, whose appearance gives no hint of the dislocation to which it has been subject higher up. Our route lay along a wild sort of glen between the modern and active moraine of the glacier, on the right, and an old grassy-grown one, a relic of former days, on the left, below the slopes of the Unter Rothhorn. A part of this mountain appears, ages ago, to have fallen from the main mass, and has covered the scanty grass-slopes with a sea of ruin, blocks of stone of all shapes and sizes



THE SAAS GRAT

lying scattered about in the wildest confusion. The walking, however, for us was very pleasant, but the antics of the mule were remarkable, and it must have been an equal relief to the animal and its rider, when, after passing some wretched hovels on the Flüh Alp, its labours were brought to an end by Miss Walker dismounting.

We were now, at 5.5, not far from the point where travellers, bound for the Adler Pass, take to the moraine of the Findelen Glacier, and began to mount in earnest, striking up the slopes to the left, in order to get on the long ridge of the Rimpfischwänge, as the rocky spur is called which runs west from the Rimpfischhorn, and separates the basin of the Findelen Glacier from that of the glaciers which drain towards the Täsch Alp. A stiff ascent over stunted grass brought us to a tract covered with boulders and masses of rock, apparently fallen from the higher part of the ridge, a style of ground at getting over which I am a shocking bad hand, my extremely short sight impeding me horribly. It requires a quick eye to look ahead and seize at a glance the most eligible route over such a chaos of shattered blocks as that which we had to traverse, and, in consequence of my inability to do this, I dropped gradually behind the rest of the party, and often found myself in a regular maze, extrication from which required a series of gymnastics of a startling character. In spite of their size, the position of some of these rocks was by no means stable, and, when the foot was placed upon some of them, they manifested a decided inclination to tilt up summarily, and deposit the luckless intruder on his proboscis. I quite envied the facility with which Morshead, with unerring judgment, hopped from one sharp-edged mass to the other, a manœuvre which requires a confident eye as well as a sure foot, as the result of a slip would be an ugly, and probably disabling fall. However, by 6.0 we had got through the worst of it, and, finding a convenient arrangement of stones, halted for breakfast, which certain internal sensations suggested must be about due. Our fears for the weather were by this time dissipated, the clouds had vanished, and the aspect of the sky betokened a brilliant day, and, as we hoped, a renewed series of successful expeditions. There was, therefore, nothing to mar our enjoy-

ment, as we sat munching the bread-and-butter of peace and contentment, and gazing at the long snowy ridge of the Stockhorn and Hochthäligrat, the prolongations of the promontory of the Riffelberg, and the spotless fields of névé at the head of the Findelen Glacier. At 6.30 we resumed our way over stones of a slightly less obnoxious character than below, varied by patches of snow, which, although still fairly hard, required some diplomacy in passing, as they occasionally manifested a tendency to let one through with a jerk into the holes formed by the stones that lay underneath. One consolation was, this state of things did not last long, and at 6.55 we got on to the crest of the ridge, between the shattered peak of the Flühhorn on the left, and the point marked on the Federal map 3258 mètres, or 10,679 feet, on the right. A slope of snow led us up to the top of this latter point, whence a short descent over shaly rocks was necessary to get down on to the snow-fields below, which stretched away, without interruption, to the base of a sort of mamelon of rocks, seamed by snow couloirs, immediately in front of the final peak of the Rimpfischhorn. The latter showed itself in the shape of two parallel towers of steep, black rock, linked together by a broad curtain of snow, and so inaccessible in appearance that we were rather sceptical at Melchior's assurances that the ascent would not be found a very serious matter.

Nothing could be more straightforward than our route appeared to be as far as the foot of the aforesaid mamelon, along the slopes of the Rimpfischwänge. On the south, the snow-fields come to an abrupt termination on the top of the precipices which overhang the Findelen Glacier, but on the north they send down the extensive Längenfluh Glacier, which falls in a succession of gentle but rather crevassed slopes towards the Täsch Alp, which might be reached by it without, so far as we could see, any serious difficulty, so that the ascent of the Rimpfischhorn might probably be effected from Randa in about the same time as from Zermatt. No words can give the faintest conception of the magnificence of the views which opened out on either side of us as we advanced. On our left we looked across the grand expanse of the Täsch Glaciers to

the graceful snow-point of the Allaleinhorn, the unwieldy mass of the Alphubel, and the towering forms of the Dom and Täschhorn, the latter, as usual from many points of view, appearing to hold the supremacy over his loftier, but slightly more distant, brother. On our right, was the whole chain of Monte Rosa, from the Cima di Jazzi to the Breithorn, a superb line of snow-peaks and broken glacier, sparkling in the rays of the sun, and more dazzling even than usual from the extraordinary amount of snow with which the glaciers were enveloped. The Breithorn, Zwillinge, and Lyskamm were magnificent objects, but the grand feature of the view in this direction was Monte Rosa itself, which fully maintained its claim to respect as the second summit in the European Alps. I never before fully appreciated the real height and proportions of this mountain, which from most points of view, and notably that from which it is most generally seen—the Gornergrat,—is a comparatively insignificant and unattractive object, while, from our present position, it towered up wonderfully. This was, no doubt, partly owing to the fact that between us and it the ridge of the Stockhorn intervened as a foreground, and served as a scale by which to measure the altitude of the main mass, but the great effect was produced in consequence of our gradually rising above and overlooking the ridge that runs from the Monte Moro to the Cima di Jazzi, so that the eastern face of the mountain from the Signal Küppe to the Nord End was exposed. In fact we got the Monte Moro view, but from a far more elevated and favourable point. The full glory of the scene was not displayed from the point where we first got on to the ridge, but, walking along it towards the Rimpfischhorn, we opened out a view of the precipices above the Macugnaga Glacier, simultaneously with the ordinary one of the snow-slopes that fall towards the Gorner Glacier, the combination producing an effect such as I have rarely seen surpassed. Nor, looking back towards the west, was the prospect less interesting than in other directions. On the opposite side of the Zermatt valley, the Weisshorn, white with snow, towered a worthy rival, and in elevation superior, to its neighbour—the Dom, but it is even more graceful in form than the latter, while it is decidedly

the harder nut to crack. The Rothhorn and Gabelhorn both looked well, but very inaccessible, the arêtes of the former being particularly steep and serrated. As I have before said, I don't think there is much prospect of attacking the Gabelhorn with success from Zermatt, but, if the attempt were made, the line of march must be by the southern arm of the Trift Glacier. From the ridge at the head of the glacier, an arête undoubtedly runs up to the very summit, whether practicable or not is another question, but the great difficulty would be to scale the precipices leading up to that ridge, which appeared to be of considerable height and fearfully steep. Of the latter quality we should have hesitated to judge at so considerable a distance, but a careful survey with the glass revealed the suggestive fact that the line of crags was unrelieved by a single snow couloir, which it probably would have been, were it possible for snow to lie at all. As our eyes wandered on to the grand spear-like form of the Dent Blanche, now clear enough, I am afraid we were animated by an unchristian spirit, as we reflected on the total collapse of our meditated assault on that most objectionable summit. On the other side of the long Zmutt Glacier, which was seen to its very source under the Tête Blanche, rose the Matterhorn; but, wonderful and singular as the form of that marvellous peak is from every point of view, it never, in my opinion, shows to such advantage from a great elevation, as it does from comparatively low points, such as the Stelli See and Riffelberg. In fact, when seen as one amongst many summits, it loses its distinctive character.

The snow along the slopes of the Rimpfischwänge was in superb order, hard and crunching pleasantly under the boot. The angle of ascent was generally inconsiderable, and, wherever the inclination happened to be rather greater, Almer and Jacob went ahead, making gashes in the snow so as to facilitate our progress. Under these favourable circumstances we advanced steadily, though without hurrying, until at 8.45 we reached the foot of the mamelon in advance of the main peak, and halted to refresh ourselves before commencing the serious part of the day's work. I cannot imagine a more delightful excursion for ladies, able to walk tolerably, than that as far as

this point, taking a mule as far as the Stelli See. The passage of the 'clappey' below the Rimpfischwänge is certainly rough and toilsome, but otherwise there is not the slightest difficulty, and I know no walk in the Alps commanding such a long continuance of gorgeous views. Up to the present time we had not been obliged to put on the rope, not a single crevasse having been encountered, but, when we were again preparing for a start, it was thought advisable to get into harness, as a precaution against a possible slip on the steep ascent before us. This was, perhaps, not strictly necessary, but I always, myself, like to make all sure, when a party must anyhow keep together, and the fast walker must, therefore, accommodate his pace to that of his weaker brethren, as no delay is thereby caused, and the increased security (real or imaginary) actually facilitates progress. All our traps and provisions, with the exception of a bottle of champagne, were deposited on the snow, and at 9.15 we started to carry what might be looked upon as the first line of the defences of the mountain.

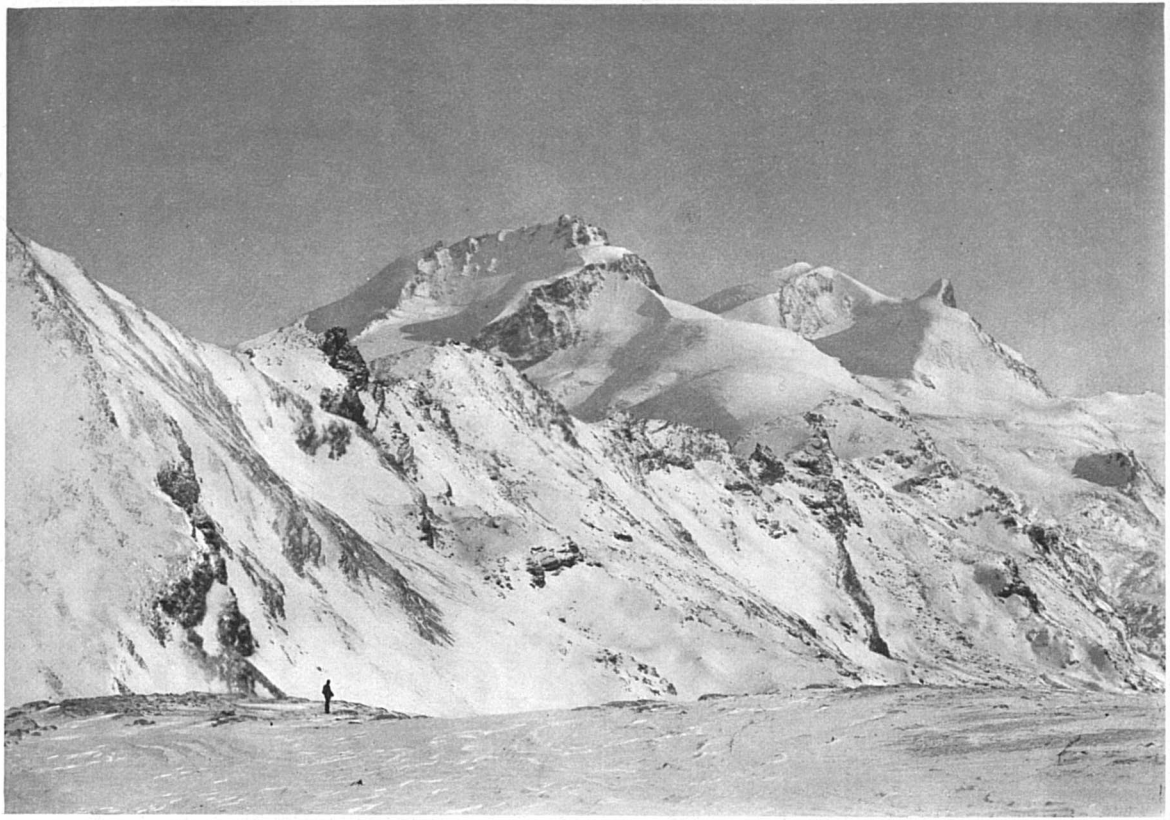
A series of short zig-zags, up a very steep slope of snow in good condition, brought us to the foot of the rocks, which were plentifully interspersed with snow couloirs. We climbed sometimes by one, sometimes by the other, in neither case encountering serious difficulty, the way, although steep, giving good hold for hands and feet, until at 10.10 we gained the top and found ourselves on a tiny plateau of snow at the very base of the final peak. Inaccessible as this had seemed from a distance, it appeared still more so now that we stood immediately under the two huge towers of black rock, which rose forbiddingly from our position. Of the two towers the southern is the highest, and to the south of it stretched upwards a long slope of snow, of such inviting aspect, that, but for Melchior's presence, we should have certainly gone up it, as offering an easy route for at least a certain distance. In point of fact, when Melchior made the first ascent[1] with Stephen and Liveing, they perpetrated this very mistake, and had some remarkably ugly climbing to rectify their error, when the peak turned out to be inaccessible from the slope. Accordingly, warned by their experience, after a few minutes' ascent, we bore away to the left, towards a couloir which

ran far into the heart of the mountain, and offered a straightforward, though formidably steep, line of march. The snow at first was in perfect condition, only requiring a good kick from the leading man to make a secure step, but, as we advanced, it became harder, so that the axe was brought into play, until, when near the top, we found only a coating of hard ice over the rocks. The couloir, broad at the bottom, narrowed higher up, until it became a mere cleft in the rocks, which at the same point were so thinly covered with ice that the steps had to be cut an uncomfortable distance apart, there only being in occasional spots a sufficient thickness to allow deep enough holes to be made. These few steps were, undoubtedly, the most awkward and difficult on the whole expedition, and every possible care had to be exercised in passing them, as there was little or nothing to hold on by. But with such good men and true as we had with us, the risk was reduced to a minimum, and in due course we reached the top of the couloir, and looked down upon and across the curtain of snow which links together the two peaks of the mountain.

So soon as we raised our heads above the couloir, we were greeted by one of the most furious winds I ever encountered, which did its best to hurl us back the way we had come, but fortunately only succeeded so far as to make us profoundly uncomfortable and rather cold. Turning sharp to the right, we now took to the rocks, which rose steeply above our heads, and commenced climbing up their northern face, towards a slight gap in the ridge, along which we must pass in order to gain the summit. The climbing was decidedly difficult, but the rocks were so firm and good that there was no danger, the hold, although very slight, being quite secure. In consequence, I thoroughly enjoyed the scramble, and we progressed steadily, Melchior leading, followed by Miss Walker, Jacob, Mr. Walker, myself, Almer, and Morshead, the latter being consigned to the rear, in order to check his 'locomotive' propensities, and also because he required less assistance than the other members of the party,—not that any of us called for very much. On reaching the gap, we had rather an ugly corner to turn, where the consciousness that a falling body would find its first lodgment on the ridge of the

Adler Pass, far below, gave a tenacity to the grip with which we held on to the projecting points and crannies in the rock, which were our only support. Turning upwards again once more, a series of gymnastics of similar character to what we had before gone through, brought us fairly on to the arête, which was composed of snow and rock, and stretched away to a point which hid the true summit from us. The wind here had us at its mercy, and availed itself of the opportunity in a most ungentlemanly manner. It roared, howled, and blew most furiously, lulling occasionally, but only for a moment in order to gather strength for a specially violent gust, which should hurl us from our position. Nevertheless we struggled on, keeping slightly below the top of the arête, which was very narrow, so that we could either hold on by the rocks, or pass our right arms over the ridge, and so make ourselves tolerably secure. The way was not steep, and in spite of all impediments we got along tolerably quickly; the first point was reached and passed, the ridge beyond was traversed along its crest with nothing to hold on by, and at 11.10 a.m. we stepped with a howl on to the summit of the Rimpfischhorn, 13,791 feet in height.

There was not much room for our large party on the highest point, and we all had to stand in attitudes, more or less uncomfortable, up to our knees in snow, and keep a sharp look-out not to take an unwary step over the highly alluring precipices which surrounded us on all sides. The view was most superb, the sky being fairly clear in every direction except towards Italy, where, as usual, nothing was visible. The Monte Rosa chain was pretty much as we had seen it all the way up, but in the opposite quarter we now looked across the spotless expanse of the great Fee Glaciers to the grand wall of the Mischabel, which shut out a considerable portion of the Bernese Oberland. Scarcely less imposing than the ranges of the Mischabel and Weisshorn was that of the Weissmies and Fletschhorn on the right side of the Saas Thal, between it and the Simplon, while away to the west the eye wandered over a sea of summits, over which Mont Blanc and the Combin towered supreme. The cairn raised by Stephen's party in 1859 was still in existence, but in a rather dilapidated state, and there were no materials at hand



THE RIMPFISCHHORN.

wherewith to repair it. Melchior was especially delighted at seeing this evidence of his previous presence on the summit, which, before our ascent, had not been again visited. This being the anniversary of the day on which I made my first appearance in this wicked world and howling wilderness, a bottle of champagne had been brought up to celebrate the event, and this we now proceeded to open. Now, in my humble opinion, champagne is a most admirable thing anywhere except on the top of a high mountain, where it is a decided mistake, as half the contents of the bottle invariably escapes before a glass can be got ready, while the remainder appears in the shape of froth, bubbles, *et præterea nihil*. The present case was no exception to the rule. We *did* get nothing but froth, and Mr. Walker was favoured with most of that, not, however, in the manner he would have preferred, as, in the act of pouring out, it was blown all over his garments, and not down his throat. No provisions had been brought up, fortunately, as we could not possibly have eaten them, all our energies being required to maintain our equilibrium in the hurricane that was raging, which I verily believe would have carried a loaf of bread forcibly over to the more frequented pinnacle of Monte Rosa, on the opposite side of the Gorner Glacier.

By 11.30 we had had enough of it, and, having with some difficulty disentangled the rope from the awful jumble into which we had contrived to get it during our halt, turned to descend in the same order as before. I must confess to having been by no means happy on the first part of the arête, as the wind, blowing so violently in our faces, rendered it difficult for me to keep my eyes open, and otherwise had such a bewildering effect, that I scarcely knew where to put my feet. I had, too, another special source of misery, in that I was animated with a strong desire to blow my nose, and was totally unable to gratify that desire, my handkerchief being securely stowed in an inner pocket of my coat (which was buttoned up), where I could not at the moment have got at it to save my life. On the whole, therefore, I was not sorry when we turned off the arête and took to the firm rocks again, down which we scrambled cautiously, but soon reached the head of a couloir, and, commencing its descent, were at once comparatively sheltered from the wind.

The few steps near the top which had been found unpleasant coming up, were worse going down, but, so soon as they were passed, our difficulties were at an end, we glissaded down the lower part of the couloir on to the plateau beneath, rapidly descending the easy rocks and snow-slopes of the mamelon, and at 12.30 p.m. reached the spot at its base where we had left our traps, and where we now halted to lunch.

Morshead and I were anxious to get down to Zermatt in time to dine before the *table d'hôte*, as we intended to go on to Randa in the evening, with the view of ascending the Dom to-morrow, and, knowing this, the Walkers most kindly insisted on our not waiting for them, but making the best of our way down with Almer. As an early arrival was really of importance to us, we agreed to the course proposed, and at 1.0 p.m. wished them good-bye for the present, and started across the gentle sloping snow-fields we had ascended in the morning. But the snow was now in a vastly different condition from what it had then been, and at every step we sank deep into it; nevertheless, Almer led at a pace I have rarely seen equalled over such ground, and at 1.30 we stood on the top of the rocky point from which we had before taken to the snow, having traversed in half an hour what in the morning, when we also went fast, had taken more than thrice that time. Having taken off the rope, we resumed our descent towards the Findelen Glacier, but found our morning's route over the upper tract of stones and snow so troublesome, that we determined to try and evade the still more objectionable 'clappey' lower down, and, accordingly, bore away rather to the left, without trying to descend much. Our manœuvre was rewarded with success, as we found a stretch of comparatively clear ground, which, though steep, was luxurious as compared with the stones, and, moreover, introduced us to a slope of snow, long and steep enough for a glissade. Down it we went double quick, but there were stones beneath, rendering the snowy surface weak in places. At one of these, Morshead, who was first, went through, making a hole which I vainly tried to avoid, and catching my foot in it, of course, pitched forward, and finished the glissade spread-eagle fashion, prone on my stomach, head foremost, in an attitude more entertaining to the lookers-on

than elegant or agreeable. However, no harm was done, and by 2.30 we were close to the moraine of the Findelen Glacier, whence a few minutes' rough walking over the tail of the 'clappey,' which we had otherwise circumvented, brought us to the point where we had commenced to ascend in the morning. Our troubles were now over, and we had a pleasant walk onwards, but were especially struck by the different impressions which the path made on us by daylight from what it had in darkness or semi-darkness; then it had seemed rather good than otherwise,—now, we pronounced it simply atrocious. At 3.25 we reached the chalets on the Eggen Alp, where we found a large and lively party, come up from Zermatt 'to see the glacier.' We made tender inquiries from the chalet people after 'Niedl,' and were informed that there was none, but, venturing to doubt this, brought our powers of blandishment to bear, and finally elicited a jug nearly full, to the unmitigated astonishment of our friends, who had totally failed to get anything but milk. Resuming our way at 3.30, we pushed on rapidly, our movements being quickened by the appearance of the weather, which threatened a change; indeed, a sharp shower came on before we got into the forest. Hurrying down the steep track, we emerged from this, ran across the meadows, and at 4.15 p.m. arrived at the Monte Rosa Hotel, after an absence of exactly fourteen hours, and one of the most agreeable and enjoyable expeditions I ever made.

Dinner was ordered, appeared in due course, and was quickly eaten, but we might have saved our hurry, as, by the time we had done, the weather looked so bad that we did not know what to do. The idea of walking down to Randa at night, merely to have the pleasure of walking back again in the morning, was not particularly attractive, but there appeared to be no alternative unless we gave up the expedition altogether, when Morshead was suddenly seized with an idea worthy of himself. 'Why,' said he, 'should we go to Randa? Let us sleep the sleep of innocence here, and, if the weather is fine in the morning, start from here. We shall only have to start two hours earlier than we otherwise should.' This was certainly the simplest way out of the difficulty, and upon this plan we ultimately determined. The Monte Rosa party arrived in the evening, having been prevented

by the wind from reaching the summit. Of course, we had the privilege of chaffing them unmercifully, but I can quite believe that they felt the violence of the hurricane even more than we did.

Wednesday, 13*th July*.—At half an hour after midnight Almer called us, the weather being clear, and to all appearance promising a fine day, so we tumbled up,—very loth to move, it must be confessed,—dressed, and went down into the *salle-à-manger*, where we found breakfast ready, and the unfortunate waiter, who, almost single-handed, has to attend to all the wants of visitors, tranquilly slumbering in a chair. While we were feeding, Peter Perren came in with a rather blank expression of countenance, and announced that he was very unwell and did not feel equal to accompanying us. Our impression was, that, having crossed the Col d'Hérens on Monday, and passed yesterday in a futile attempt on Monte Rosa, he was rather knocked up, and did not feel inclined to spend the third day in toiling up the steep slopes of the Dom. However, of course, as he pleaded illness, we could not insist on his company, and so, as a second man was considered necessary by Almer, we engaged young Peter Taugwald, who happened to be opportunely on the spot, and at 1.30 a.m. set off.

The night was very dark, though the sky was spangled with stars, and we should have been better pleased had the temperature of the air been a good deal lower than it was, the atmosphere being uncomfortably warm and oppressive. I was unpleasantly reminded of the morning last year on which I started for the same expedition, upon which occasion, in spite of early promise, I had been enveloped in fog and snow on the upper part of the mountain, but I kept my misgivings and reminiscences to myself, and we tramped silently along the broad path leading to Randa, hoping for the best. Having reached the summit last year, my only object in repeating the expedition was to see the view, which had then been entirely blotted out, but which is considered by all who have seen it to be the very finest in the Alps. Morshead had never been up, but he agreed with me that the moment it became evident that we should have no view we should abandon the attempt,

and not go on merely for the sake of getting to the top. An excellent new path has recently been made from Randa to Zermatt, and just above Täsch the old track has been entirely carried away by the ravages of the Visp. In the darkness we missed the point where the old and new routes diverge, and were within an ace of walking into the river, above which the track breaks off abruptly, a catastrophe which would have made a summary end of our wanderings. At 3.30, when we reached Randa, which was as silent as the grave, it was daylight, so we woke up for the first time, shook ourselves, and prepared to begin the day's work in earnest. Passing through the village and the meadows beyond, we crossed the furious torrent of the Randaierbach, which takes its origin in the snows of the Gruben or Festi Glacier, many thousand feet above, and plunged into the forest which covers the steep side of the valley. I had so vivid a recollection of the discomfort attending the ascent through this forest last year in the dark, that, when Morshead proposed to make Zermatt our starting point on the present occasion, it had at once struck me that one of the principal recommendations of such a plan was, that this portion of the route would be traversed by daylight. Our experience amply confirmed this view, for, punishing as the work was, it was luxurious compared with what I had before undergone, and would have been positively agreeable if Almer had not led at a pace with which I found it difficult to keep up, and which soon reduced me to a state of dissolution. I don't suppose that, of its kind, there is a steeper bit of climbing in the Alps than that of these slopes above Randa, up which we now positively raced, although the ground was in places so very precipitous that we had to haul ourselves up by the roots and branches of the trees. There was at first a faint track, but this soon died away, leaving us to select the line of route which seemed best in our eyes, though, in very truth, 'bad was the best.' As the trees became scantier and gradually thinned away, the ascent became less steep, but even more laborious and difficult, lying over huge broken masses of rock, over and between which it was not easy to pick a way. As usual on such ground, I was especially ill at ease, and was sincerely glad when

at 5.15 we came to a tract of comparatively open country, which might, perhaps, be considered the top of the first step in the ascent.

We were now exactly opposite the Bies Glacier on the other side of the valley,[2] and, consequently, in a most favourable position for a thorough examination of it, with a view to determining the most promising route for our contemplated expedition on Friday. The central portion of the glacier itself looked the reverse of tempting, if not altogether impracticable, but we thought that we should be able to circumvent the enemy by taking to the rocks on the left bank, which, though formidably steep, we had little doubt would offer some sort of way to the upper plateau of névé. There is scarcely a finer object in the Alps than the Weisshorn, seen from this point. The whole mountain is visible at once, from summit to base, and the elevation is sufficiently great to allow the observer to form an idea of the true proportions of this, the most graceful, as it is one of the most difficult of access, of the higher summits. As regarded our own expedition, I was vexed, though scarcely surprised, to see that we had perpetrated precisely the same error as last year, in keeping too far to the north, and ascending higher than was necessary. After crossing the Randaierbach, we ought to have stuck as close as possible to the course of that stream, and not allowed ourselves to be seduced into following stray paths through the heart of the forest, whereby we not only lost time, but incurred a quite unnecessary amount of labour. We now bore away to the right, making a slight descent, and then skirted the rapid slopes of rock and turf mingled which lie at the base of the line of cliffs which support the tails of the Gruben and Hohberg Glaciers, and formed the next obstacle that we had to overcome. Although the ground is steep, the footing is not bad, and we climbed along with great care, gradually working round the foot of the cliffs which, at all points save one, are quite inaccessible,—at least no way has yet been found up them. Personally, I infinitely prefer rocks, however steep, to the disgusting style of ground we had to traverse, where tufts of slippery grass were the only supports for the foot, while there was little or nothing to hold on by, and the results

of a bad slip would have been a roll for a longer distance than would have been agreeable. When almost under the end of the Gruben Glacier, whose final ice-blocks were just visible peering over the rocks above, we again struck straight up, and, having mounted above the top of a ravine which bites deep into the hill-side, turned once more to the left, and, after a rather awkward scramble, approached the base of the gully by which alone it is possible to scale the cliffs. This, from below, looks by no means prepossessing, but, in point of fact, only the last few feet of it offer any serious difficulty; there, however, the gully contracts to an exceedingly narrow 'cheminée,' and the rocks absolutely overhang. I had all along looked forward to this place to afford a test whether my mountaineering powers had or had not improved since last year, when I was hauled up more like a bale of goods than anything else, and arrived at the top feet foremost, in a most undignified manner. Almer's opinion on the subject was shown by his observing that he did not think we need put on the rope, and, after he had scrambled up, when it came to my turn, I was delighted to find that I managed to overcome the difficulty with comparative ease, with the help of a good grip from him as I appeared at the top. The gymnastics necessary to carry out the operation were, however, sufficiently remarkable, and I was by no means sorry that the effort required was but a short one.

It was consoling to think that the steepest part of the ascent was now over, and the most serious difficulty to be encountered left behind, and, on the strength of the reflection, we proposed to stop and breakfast. Almer, however, suggested that we should defer the meal until we reached a certain spring which he remembered to have seen higher up, and we readily acquiesced. Our route lay over a desert of loose stones, succeeded by banks of shale, until at 6.30 we came to the expected spring, and established ourselves as comfortably as possible. Two causes, however, combined to defeat our efforts, one physical, the other mental. In the first place, a fierce wind swept across the mountain side and chilled us to the bone. Secondly, our minds were grievously disquieted at the aspect of the weather, which had been getting steadily worse

ever since we left Randa. The Matterhorn, Gabelhorn, and Weisshorn were enveloped in dense clouds, and over the former especially a most furious storm was evidently raging; still, on our side of the valley all was yet clear, and we solaced ourselves with the rather feeble hope that the attractive power of the three above-named mountains might retain the bad weather where it was. The spring is a very excellent one, and is noteworthy as being the only one to be found on the mountain, but under the melancholy circumstances we could neither appreciate it, nor our bread-and-butter as they deserved, and so at 7, bringing our meal to a conclusion, we resumed our way in a somewhat doleful frame of mind. Dreary slopes of shale, interspersed with patches of snow, led us in due course to the moraine on the right bank of the Gruben Glacier, at a short distance above its termination. We did not take to it at once, but kept to the hard slopes of old avalanche snow alongside, which appeared to offer a smoother and pleasanter way. We were at last, however, driven on to it, and, after picking a way amongst the dirty crevasses by which its continuity is broken, found ourselves at 8.10 fairly on the main glacier, and halted for a few minutes to put on the rope.

This was rendered advisable by the state of the ice, which for some distance was steep, and much broken,—very much more so, it struck me, than we had found it last year. A good deal of dodging and some step-cutting were necessary before we left the worst crevasses behind us, but we finally worked our way on to the comparatively level and quite easy plain of ice above. The great mass of the Dom was now straight in front of us, still quite free from clouds, but a glance behind revealed the painful truth that the storm was rapidly drifting over in our direction. Indeed, we had gone a very short distance when the clouds swooped down on us, enveloping everything in a dense fog; it began to snow violently, and the wind, which had moderated, commenced to blow again with increased force. To carry out our virtuous resolutions, we ought instantly to have turned tail and fled, but we could not bring ourselves to do so, and, as Almer, when appealed to, for a wonder, gave an unhesitating, decisive answer to the effect that he believed that, in

spite of the bad weather, we *could* get to the top, we determined to persevere to the latest possible moment. In fact, the idea of having undergone the grind up from Randa, and then turning, without result, just when the greatest difficulties of the route had been overcome, was repugnant to all of us, while Almer was animated with a laudable ambition to have the power of boasting that he had passed the Col d'Hérens and ascended the Rimpfischhorn and Dom in three successive days. Fortune seemed at first inclined to smile on our boldness, as the storm lulled perceptibly, the wind blowing with rather less violence, and the fog becoming less dense, so that we were just able to make out the forms of the surrounding peaks. We steered for the ridge at the head of the glacier, making for the point at its north-eastern angle, which is marked on the Federal map 3757 mètres, or 12,327 English feet, but found the snow in such bad condition that our onward progress was rather slow. Hoping to improve matters, we made for the rocks on our left, and found a broad, sloping shelf near their base, along which we were able to advance without difficulty, and with much greater speed and less labour than over the snow. This led us to the base of the wall which hems in the head of the glacier, up which a broad snow couloir offered a natural route, of which we promptly availed ourselves. The angle was considerable, but the snow was in sufficiently good condition, and we mounted rapidly, until it became necessary to get on to the rocks on the right, which were steep and broken, and required more care to avoid a slip. A stiff scramble brought us to the crest of the ridge at 9.20, or only twenty minutes later than I had been on the same spot last year, starting from Randa, so that, happen what might, we had proved conclusively that it is by no means essential to make that place the starting point for the expedition.

We were now standing on the main ridge of the mountain, which stretched away on our right towards the summit, while at our feet lay the Hohberg Glacier, whose snows take their origin on the north-western face of the peak, and occupy the angle between it and the ridge of the Nadelgrat, whose highest point, the Nadelhorn, the third peak of the Mischabel group,

was exactly opposite our position, though, alas! quite invisible. The summit can be gained with equal ease either by the arête or the glacier; the former, probably, offers a rather shorter, more interesting, and less laborious route, but is not recommendable in bad or windy weather, being very much exposed, while the glacier is comparatively sheltered. There was, therefore, no question as to which we should adopt on the present occasion, the real point at issue being whether we should adopt either, as it became painfully evident that, during the lull on which we had been congratulating ourselves, the storm had been gathering itself up for an outburst, to which all that had yet passed would be like child's play. Almer, however, was still in favour of an advance, and, as his word was, of course, law with us, we set about finding a line of descent on to the Hohberg Glacier, which was not far below, but separated from us by a very precipitous wall of rock and ice. Advancing towards the Dom for a short distance, we turned down, but found the descent quite impracticable at the point selected, so retraced our steps along the ridge, until a spot was found where a second attempt could be made. This was more successful, as, clambering carefully down some ledges of shaly rock, succeeded by a steep bank of snow, we jumped over a small bergschrund, partially choked, and landed on the glacier. We struck straight across underneath some overhanging cliffs of névé, which appeared in a most uncertain state of equilibrium, and are evidently in the habit of coming down occasionally with a run, the glacier being covered in all directions with scattered blocks and débris. Taugwald, who was leading, hurried over this rather dangerous bit of ground as fast as possible, but the crevassed state of the glacier rendered it impracticable to travel as rapidly as was desirable. The chasms were numerous and complicated, and a great deal of step-cutting and pulling with the rope was required to force a passage. One or two places were particularly nasty, and, just as we were past the worst bit, the storm that had been threatening burst upon us with a fury such as I have rarely experienced. The wind roared and screamed so that we could not hear one another speak, while the snow fell thick and fast, obliterating everything from view, and

completely blinding us. The cold, too, was most intense, but Almer's cry was still 'Vorwärts! vorwärts!' So on we struggled up the steep snow-slopes, Morshead, myself, and Taugwald becoming at every step more doubtful as to the prudence of proceeding. Taugwald's opinion was not worth much, but its nature was sufficiently evidenced by the feeble and spiritless manner in which he wielded his axe and trod the steps. His blows were those of a man who felt that he was expending strength in what was a hopeless task. At length an icy gust of more than ordinary violence, which seemed to drive all the breath out of our bodies, caused us to halt and reflect upon the possible results of further persistence. The appearance of the party was rather curious, every one being so completely covered with snow, that he was scarcely distinguishable from the slopes on which we were standing, Morshead, who was blessed with a beard, presenting a particularly remarkable aspect. Amidst the roaring of the storm it was not easy to interchange ideas, and to stand still long was to be frozen, so, when even the undaunted Almer admitted that the battle had turned against us, and that in such weather we could not reach the top, there was no further discussion, and at 10.0 a.m. we turned tail, and fled precipitately.

I believed at the time, and believe still, that the attempt was pushed to the verge of rashness, and that, had we persevered for a quarter-of-an-hour longer, the expedition would have resulted in a serious disaster. The quantity of snow that was falling was proved by the fact that the deep steps which we had made coming up were already entirely obliterated, and that the rocks below the Col,[3] which we reached again at 10.20, were completely covered. The descent of the wall down to the Gruben Glacier was rapidly effected by the snow couloir, and at 10.30 we took up our position in a sheltered nook in the rocks on the right bank, and prepared to recruit exhausted nature. While we were engaged in this agreeable and necessary operation, the clouds over the Weisshorn and Rothhorn partially lifted, and enabled us to get a tolerable view of the ridge connecting those peaks at the head of the Schalliberg Glacier. This was important, as I proposed making a pass from Zinal to Zermstt in

that direction, and it was desirable to ascertain for what point on the ridge it would be best to make. Two Cols were visible, one between the Rothhorn and Schallihorn, the other between the Schallihorn and Weisshorn. The descent from the former would lie over the main branch of the Schalliberg Glacier, and appeared preferable to that from the latter, which would be down a very steep and broken secondary glacier, under the Weisshorn. Both were undoubtedly practicable, but Almer and I agreed that, supposing the difficulties of either to be equal on the Zinal side, we would select the gap between the Rothhorn and Schallihorn.[4]

In spite of a gradual clearance of the weather in other quarters, over the Dom the clouds remained thick and impenetrable, and were driven along by the wind at a pace which indicated that it would be hard indeed for any one to stand up against it. At 11.0 we took our departure, and, hurrying over the Gruben Glacier, cautiously picked our way through the crevasses, and at 11.45 got on to the moraine, and took off the rope. Instead of following our morning's route, we kept along the moraine for a considerable distance, finding the walking easier than we had expected, and did not quit it till we were not far above the end of the glacier, when we struck away to *terra firma*, and, taking another pull at our friendly spring, reached in due course the top of the Cheminée. The descent of this was decidedly more awkward than the ascent had been, the gully below falling away so rapidly that it was not easy to keep one's footing on landing in it from above. Almer, however, went down first to receive waifs and strays, and we followed without accident. To Morshead the thing was a mere 'bagatelle,' but I must plead guilty to having been sincerely glad when we had left the difficulty behind, and were scudding down the steep slopes below. On reaching the base of the cliffs, we carefully eschewed the sea of stones we had toiled over on the way up, and instead kept straight down near the torrent, a shorter and easier course. But, on getting into the forest, we unfortunately came upon what looked like a path, and were inveigled into following it. It led us right into the middle of the wood, and finally resolved itself into an old watercourse, and

came to an untimely end, leaving us to recover the proper direction after a most irritating waste of time. We at last hit upon a track which really led us 'out of the wood,' when we quickly gained the bank of the torrent, tumbled across it, ran through the meadows, and, at 2.35 p.m., entered the little Hotel du Dom, at Randa.[5]

We ordered up a bottle of lemonade, and consumed it with enormous satisfaction and much smacking of the lips, until, arriving at the bottom of the bottle, we discovered the bodies of some two dozen blue-bottle flies, in various stages of decomposition, when our feelings were by no means so pleasurable. At 3.0 we went on our way, and had a pleasant walk to Zermatt, which we reached at 4.45 p.m., and entered, it must be confessed, with our tails *rather* between our legs; not that our failure had been discreditable, but the feeling of being beaten is never pleasant. Gaskell and Perren had gone up to the Riffel, in hopes of a fine day to-morrow for Monte Rosa, but, when we went to bed, although the weather was not absolutely bad, their chances of success appeared rather doubtful.

NOTES TO CHAPTER X

[1] This ascent was made in 1859, but as with several other early climbs of great interest, very little record is left of it. It is mentioned in the Preface (p. viii) of the first series of *Peaks, Passes, and Glaciers.* Any one who finds the ascent from Zermatt itself too long, or who wishes to be early on the peak for the sake of the Italian view, can now start from the primitive but quite comfortable little inn on the Flüh Alp, not very far above the stony slopes described on p. 224.

[2] Plate XII. is a view of the Bies Glacier taken from a point directly above Randa, but lower down than the particular point of view spoken of here by Moore.

[3] This little Col is now known as the *Festi-joch.* It lies on the main north-west arête of the Dom, which separates the Festi and the Hohberg Glaciers, and lies between the points marked 3757 and 3724 metres on the Swiss map.

[4] '*Schallihorn.*'—See chapter xii. There are in reality three Cols of about the same height. The Schallijoch lies between the Weisshorn and the Schallihorn, and the Moming Pass may be crossed either to the south or the north of the little peak called the Moming Spitz. The name Moming Pass, however, is generally reserved for the southernmost of the three Cols, that crossed sub-

sequently by Moore. The pass to the north of the Moming Spitz is now called the Ober-Schallijoch on the Swiss map.

[5] The Dom (14,941 feet) was first climbed by the Rev. J. Ll. Davies in September 1859, and the climb is described in the first series of *Peaks, Passes, and Glaciers* (chap. vii.). Moore's attempted route is the same as that by which Mr. Davies ascended, and remained practically the only route for many years. In 1874 the north-east arête was climbed from the Nadeljoch, and in 1875 the ascent was made from Fee by the rocks of the east face. In 1878 the south arête was climbed from the Domjoch, and in 1882 and later some very difficult routes have been discovered in which the west arête (or 'Teufelsgrat') is chiefly used. See Güssfeldt, *In den Hochalpen*, p. 279, and Mummery, *My Climbs in the Alps*, chapter iv.

CHAPTER XI.

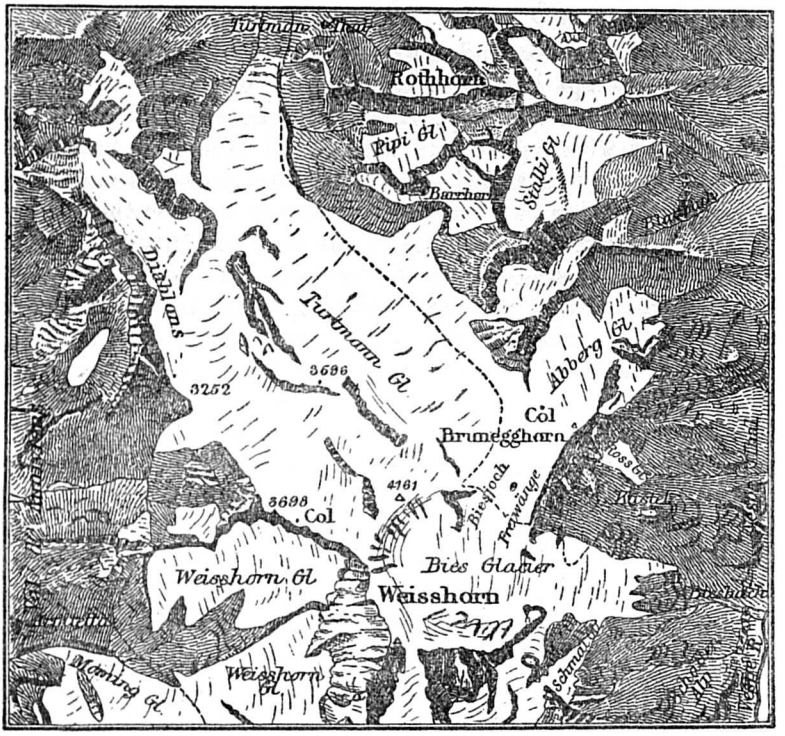
THE BIESJOCH.

Thursday, 14*th July*.—I woke at an early hour this morning, and, on getting out of bed to inspect the weather, found the sky obscured by clouds, and the aspect of things generally unpromising for the Monte Rosa party; so, congratulating myself that I had no expedition on hand, I turned in again and 'took it out' in sleep till 9.30 a.m., when I woke once more to the unexpected presence of a fine day. Nevertheless, Gaskell and Perren arrived early from the Riffel, not having been able to start for Monte Rosa in the morning, and having been, consequently, obliged to finally abandon the idea of making the ascent. The result of this was, that it was settled that Gaskell should cross the Bies Glacier with us to-morrow, which he otherwise would not have been able to do, an arrangement by which he gained an expedition very much more exciting and interesting than the ascent of Monte Rosa. The day was spent in luxurious ease and idleness, only broken by the completion of the various little arrangements rendered necessary by

a 'change of base'; but by the evening we had had enough of it, and sat down to dinner, before the Table d'Hôte, glad that we were soon again to be on the move. After dinner Seiler brought in two bottles of sherry, which he insisted on drinking with us. His civility, indeed, and anxiety to please were so marked, that we quite forgave him certain little offences which he had perpetrated last year. We subsequently heard that our expressions of discontent had worked round to him, and were the cause of the present demonstration. However, in every respect there was a vast improvement this year, and we had good reason to be satisfied with our treatment and charges, in which latter a tendency to extortion, which we had observed, was no longer perceptible.

At 6.35 p.m. we left Zermatt, and had an agreeable walk down to Randa, which we reached at 8.20, and were rejoiced to find the Hotel du Dom free of tourists, so that we had the field to ourselves. Before retiring for the night, we took a long and anxious survey of the Bies Glacier, over which our morrow's journey lay, though, of course, it was too dark for us to make out much of our intended route. As is well known, the declivity on which this glacier hangs is one of the steepest in the Alps, and the natural result is, that from the point where it springs from its reservoir of névé under the Weisshorn, to its termination above the valley, it is a continuous ice-fall of the most hopeless and forbidding character. The idea of making a direct pass to the Turtman Thal in this direction seems to have occurred to no one till 1862, when Franz Andermatten, of Saas, with two French gentlemen,[1] ascended the great Turtman Glacier to the Col between the Brunegghorn and the second peak of the Weisshorn, and descended to Randa, an exploit which no one had since attempted to repeat. From the visitors' book at the Inn, we found that they had taken seven hours to reach the Col, and nine hours to get down to Randa, a sufficient commentary on the difficulties of the route. Perren, however, gathered from some hunters, at Randa, that they had not descended by the glacier, or by the rocks immediately to the left of it, but had kept far to the north, and made their way down by a series of couloirs under the Brunegghorn. We,

therefore, determined to try and find a more direct course, and mount either by the glacier itself, or, if that should prove impracticable, by the rocks alongside, taking particular care to avoid being driven towards the Brunegghorn. Almer was very confident we could get up in a good deal less than nine hours,



THE TURTMAN AND BIES GLACIERS

but an early start was none the less advisable, so we went to roost without much delay.

Friday, 15th July.—When Almer called us at 1.45 a.m., my first operation was to thrust my head out of window to see how we were likely to fare as regarded the weather, and the result was encouraging, as, looking up the valley, from which quarter bad weather was to be anticipated, if at all, the sky was

clear, and there was nothing to indicate mischief brewing. But, by the time we had finished breakfast, an extraordinary change had occurred. The valley was entirely filled with clouds, which lay so low that the tail of the Bies Glacier was completely hidden, and the general appearance of the weather was as bad as it could possibly be. Still it was not raining, so at 3.5 a.m. we started, in rather a melancholy state of mind, and with dire forebodings of defeat and discomfiture. The passage we were about to attempt had been one of the pet items of my programme on which I had specially set my heart, and I could not contemplate with equanimity the idea of failure, or having to abandon so long-cherished a plan. Having crossed the swollen stream of the Visp by a bridge immediately opposite the village, we found ourselves at the foot of the long fan-shaped slope of débris which stretches from the very foot of the Bies Glacier down to the bank of the river, widening in its downward course until at the bottom its width is very great. This is all brought down by the torrent, or rather torrents, from the glacier, which in winter, by this evidence of their violence, must be furious streams, but in summer are nothing but tiny rivulets, which meander promiscuously amongst the ruin around, until they lose themselves in the Visp. We were on the wrong side of this slope, and had to cross it, so as to get on to the left bank of the torrents, and the piece of walking which was necessary in order to accomplish this operation, reminded me strongly of Dauphiné in general, and the Vallon des Etançons in particular. There was a slight sheep-track, but it was almost lost amongst the chaos of stones, of all shapes and sizes, through which it led, and over which, in the still uncertain light, it was difficult to pick a way without coming down on one's nose. I have never in the Swiss Alps seen such an extent of débris produced from such a cause. Not an atom of vegetation is visible, every shrub or tree having been swept away by the ravages of the torrents. These were easily crossed, and, so soon as we were close under the cliffs on the left side of the gorge, we turned up towards the foot of the glacier, which was at a far greater height above us than would have been supposed from below, keeping along the base of the cliffs, whose top was marked by a clump of three

solitary trees, which, standing out against the sky, had a curious effect, as though they had been deserted by their wiser companions, and left there by mistake.

The ascent was very rapid, and the sheep-track was of the vaguest possible character, requiring the use of hands almost as much as feet, and occasionally disappearing altogether for a hundred yards or so. We should, probably, have thought more of the objectionable nature of the way, had we not been absorbed in contemplating the weather, which drove us half mad by the way in which it changed alternately for the better and worse, until our good genius finally prevailed, the clouds became thinner, patches of blue extended themselves over the sky, and, when we at last caught sight of the snowy pyramid of the Weisshorn, curiously foreshortened, rising, apparently, to a height of a very few feet above the top of the ice-fall of the glacier, we dismissed further anxiety on the subject, and went on our way rejoicing in the expectation of a glorious day, which was not destined to be disappointed. Deeper and deeper did we penetrate into the gorge, but, though the climb was cruelly steep, the end of the glacier still kept its distance in front. It was evident from the very first that it would be impossible to get on to the ice at its foot, and that we should have to make more or less of a détour over the slopes on our right in order to circumvent the final fall. Accordingly, when we were about on a level with the lowest point of the extraordinary tongue of ice in which the northern arm of the glacier terminates, we bore away to the right, and, turning again towards the valley, retraced our steps, as it were, for a short distance at a higher level, and thus, describing a gigantic zig-zag, landed at last on a tract of open ground above the cliffs which had seemed so high above Randa, and looking down upon the three weird and solitary trees beneath which we had passed. Just before attaining this spot, we passed the unfortunate sheep who are condemned to pick up a precarious existence on these almost barren slopes, and for whose benefit the path we had followed is maintained. Bad as it is, it is better than none, and we felt duly grateful to the wretched animals, the authors of the convenience. Here, however, it came to an end, but the comparatively easy char-

acter of the ground made its absence a matter of indifference, and, turning our backs once more upon the valley, we pursued our course up gentle slopes of broken ground, until at 5.5 we found a tempting spring, which struck us as an eligible position for a short halt to look about.

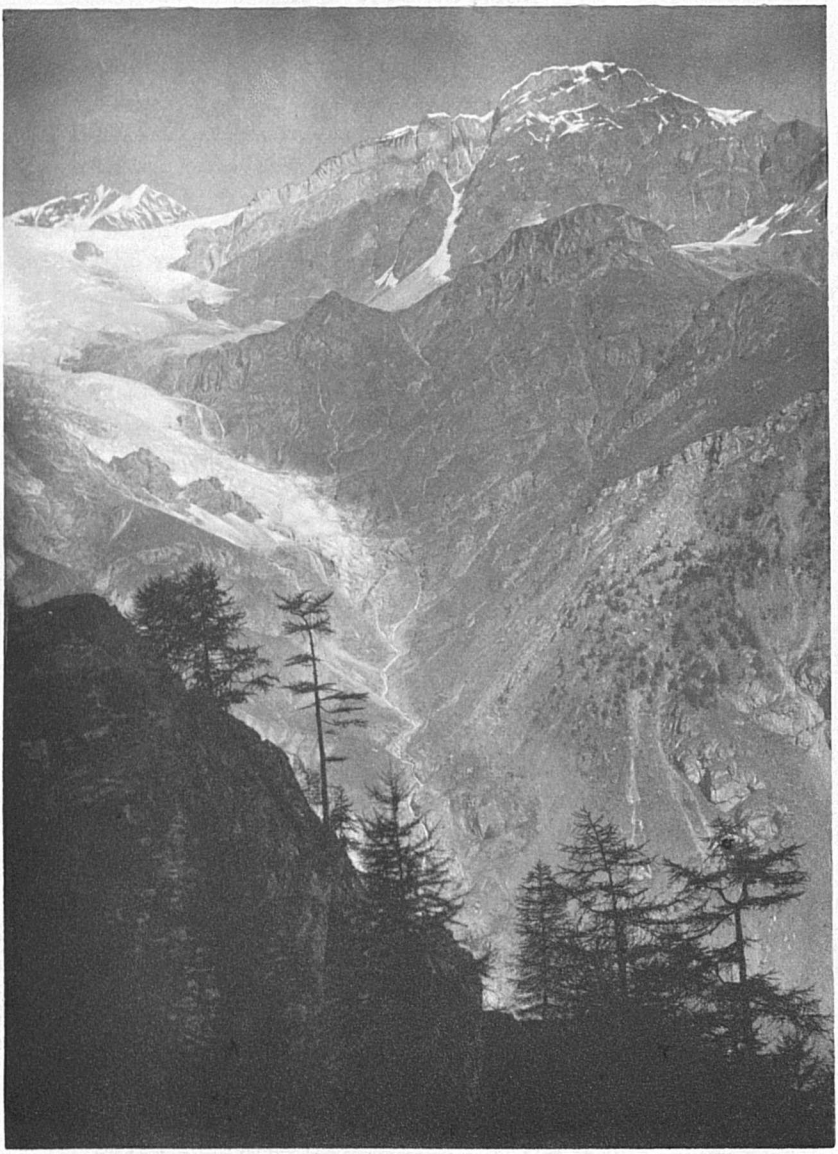
The most conspicuous feature in the view was the magnificent chain of the Mischabel, which, exactly opposite to us on the other side of the valley of Zermatt, was seen to extraordinary advantage. I have never been quite able to determine which presents the most glorious spectacle,—the Dom and Täschhorn from our present position, or the Weisshorn from an exactly corresponding point on the slopes of the Dom. I am, however, inclined to give the preference to our present view, the number of peaks and glaciers visible being greater than from the opposite slopes, although no summit in elegance of form is comparable to the single peak of the Weisshorn. The resemblance between the Dom and Täschhorn is most remarkable, and even as regards height, any one ignorant of the truth would find it hard to award the crown of supremacy. They are, indeed, worthy rivals, but notwithstanding that the Täschhorn in elevation must yield, though but slightly, to his brother, he can boast of being by far the most difficult of access. We were able to trace every step of the route up the latter, and clearly made out the exact point where we had been obliged to halt on Wednesday. The Kien, Gruben, and Hohberg Glaciers were set before us from end to end, and were very attractive objects, all terminating in a most abrupt manner on the brow of steep cliffs. The Hohberg Glacier is much the most dislocated of the three, its final ice-fall being one of the longest and most hopelessly broken I have ever seen. The Nadelhorn, which rises from its right bank to a height of 14,203 feet, is a very fine peak, but less massive than its two neighbours. There is no chance of attacking it with success from the side of Randa,[2] but I believe it has been once ascended from Saas, at which place it was long considered the true Dom. The only glacier of the range that was not well seen was the great Ried Glacier, which, flowing from a great field of névé, between the Balfrin, Ulrichshorn, and Nadelhorn, takes a north-west direction and terminates above St.

Nicholas. It was, consequently, masked to a great extent by an intervening spur, but we saw enough to allow us to form some idea of its size and steepness. Not the least interesting part of the view to us was the steep side of the valley below the Gruben Glacier, up which I had twice so painfully toiled, and which looked almost perpendicular, causing Gaskell to pour forth heartfelt thanksgivings that he had not been doomed to take part in our futile expedition of Wednesday. It may be as well to observe that the point from which this superb view of one of the loftiest, though generally invisible, Swiss ranges, is to be obtained, is only two hours' distant[3] from Randa, that is to say, is within the compass of an easy afternoon's walk, which would also include a near view of the end of the Bies Glacier, in itself sufficiently curious.

At 5.20 we got on the march again and struck up rather to the right, in order to get round a bold, rocky peak, which, with its buttress, was now between us and the Bies Glacier, and completely hid it from us. The ground was steep but no ways difficult, and we pushed on rapidly, passing many admirable sites for a bivouac, which might be turned to account by any one wishing to attack the Weisshorn from this side, or desiring to get on to the upper plateau of the Bies Glacier at an earlier hour than is possible, starting from Randa. The slopes, at first composed of stones and the usual poor soil, gradually gave place to smooth rock and patches of snow, which increased in extent, until, after resuming our proper direction to the left, we once more entered the basin of the glacier, and at 6.40 got on to the moraine at a point just below the central ice-fall, but high above the end of the glacier. Between the moraine and the cliffs, forming the left side of the basin, was a broad tract of open ground, which must once have been covered by the now shrunken glacier, but in these degenerate days shows nothing but slopes of shale and the débris of avalanches fallen from the cliffs above. At the western end of this dreary expanse a wall of rocks rose abruptly to a sort of shelf, above which a tremendous line of precipices towered, running north and south, and supporting what looked like a wall of snow of considerable height. This wall of snow we knew to be the edge of the great

field of névé which supplies the Bies Glacier, and on to which we were desirous of finding a way; but this way was not visible at first sight, so we took up our position on the moraine to breakfast, and at the same time make a thorough reconnaissance of the ground. Our desire was, if possible, to ascend by the glacier, so we set about examining what prospect of success there was in that direction.

The field of névé before referred to has only one outlet—towards the east, but even on that side it is almost enclosed by a line of precipices, which, originating on either side from the Brunegghorn and a spur of the Weisshorn, leave only a comparatively narrow opening through which the glacier can find its way to the valley. Just at the point of greatest compression, the fall in the ground is most rapid, and, as might be expected, the result is a most fearful dislocation in the ice, which continues without interruption, though less marked in some places than in others, until the glacier comes to an end. We were now looking at the steepest and most shattered part of the fall, which, although narrow as compared with the reservoir from which it springs, is wide enough to present a superb spectacle, as its confused maze of icy cliffs and pinnacles sparkled in the morning sun. The forcing a passage through this wonderful labyrinth, if practicable at all, would evidently be a work of no small difficulty and danger, and, before deciding on the feasibility of such a course, we turned our attention to the rocks on its left bank, to see what sort of an alternative route they offered. It is notoriously difficult to form from a distance any reliable opinion of the character of rocks, but of the steepness of the upper line of cliffs at which we were looking there could be no doubt. It was an absolute wall, seamed here and there with snow couloirs, of whose practicability it was impossible to judge. The lower tier of rocks, which would have to be scaled in order to reach the foot of the final precipice, was even more unpromising in appearance; for, although the rocks were less steep, they were very smooth, having, probably, at some period or other been covered by the glacier, and would offer serious difficulties before the shelf that stretched from their top to the base of the upper tier could be gained. On the whole, after



THE BIESJOCH AND FREIWÄNGE.

mature consideration, Almer and Perren decided that, in the first instance, it would be best to attack the glacier, though the latter seemed by no means sanguine of success, either on the ice or the rocks. From our position, we got a most admirable view of the peaks of the Saasgrat, south of the Täschhorn (amongst which our latest conquest, the Rimpfischhorn, showed by far the most imposing front, though really slightly inferior in height to the nearer summit of the Alphubel), and also of the whole range of Monte Rosa as far as the Breithorn, in which the Lyskamm was, perhaps, the finest object. What with breakfasting, deciding on our further line of march, and contemplating the view, our halt was rather a prolonged one, and it was not till 7.25 that, having put on the rope, we started, under Perren's lead.

Descending a little, over banks of shale and snow, we skirted the amphitheatre that lay between us and the glacier, and, passing close under the base of the lower rocks, very soon reached the edge of the ice. So far our work had been of the most straightforward and easy character, and our advance had been unopposed, but henceforward the onset was to be desperate. So far as we could judge, the central portion of the glacier offered the least unpromising line of attack, so we turned in that direction, and forthwith encountered our first obstacle in the shape of a broad steep slope of hard ice, which had to be crossed and could not be circumvented. Perren began cutting steps across, and we were about one-fourth of the way over, when whir-r-r-r-r! down came a stone, about as big as a cocoa-nut, right in front of us, taking a leap over the top of the slope and then ricochetting away to help to swell the moraine below. The enemy's batteries had opened on us, and we paused for a moment to see whether the first shot was the precursor of a volley, but the supply of ammunition, fortunately for us, was defective, and we continued our way unmolested by the larger artillery, though raked by a constant and irritating musketry-fire of small stones, which came down at the rate of nineteen to the dozen. It was decidedly not a place to linger in longer than was necessary, so Perren contented himself with merely chipping notches in the ice sufficient to give foothold, at the longest

possible intervals, by help of which we quickly made our way on to the glacier proper, and turned upwards. We were out of danger from the stones, which we now with equanimity saw shooting down the slope on our right, but the walking in which we were engaged was by no means easy. The glacier was so steep that every step had to be cut, and was, moreover, at regular intervals, intersected by broad crevasses, running transverse to our course. We were not ascending an ice-fall, in the general acceptation of the term, but a slope, whose continuity was broken by a series of chasms, ranged in parallel lines one above the other. These were all, without exception, choked with snow, and so offered no serious impediment to our progress, only ordinary care being required to pass them, but in a less favourable season the state of affairs might be very different. The great ice-fall was on our left, and we must soon take to it; but, as we contemplated its steepness and dislocation, the length of time which, judging from our present rate of progress over much less difficult ground, its ascent would require, and the risk from avalanches, to which during the greater portion of the way we should be exposed, we became momentarily more doubtful of the wisdom of adhering to our original plan. Almer, after anxiously scanning the icy battlements above us, suggested at last that the ascent of the glacier might take too much time, and that, perhaps, we had better try and find a way up the rocks, which were now on our right, but separated from us by the upper portion of the ice-slope which we had traversed lower down.

However void of results in other respects, by our manœuvre we had turned and got above the lower rocks, and were on a level with the sort of shelf at the foot of the final line of cliffs, which did not look more accessible than they had from below. Still we determined to take to them, but, in order to get at their base, had to cross the slope before mentioned, an operation which would evidently involve for a short time an amount of risk far greater than any to be encountered if we adhered to the glacier. This slope, we now saw, took its origin at the foot of a tolerably lofty spur of rocks, projecting from the main line of crags, supporting a shelf of glacier, fearfully broken, terminating

in tremendous ice-cliffs. It was clear that these masses of ice must periodically be forced over the edge of the rocks and swept down the slope, which probably owes its origin and nourishment to such falls, and from the threatening position of some of the pinnacles of ice, it seemed probable that an avalanche on a grand scale might come down at any moment and carry everything away before it. The danger was of the character which a guide most strongly objects to incur, as his skill and courage can avail nothing in the event of a fall really occurring; but in the present case the risk must be run, or we must abandon the expedition. Between such alternatives there was no hesitation, so we turned off to the right, and commenced passing the slope, on which débris was lying pretty thickly. We almost ran across, in spite of the insecurity of the footing, and thought the rocks on the other side never would be reached. In point of fact, however, the passage, long as it seemed, did not occupy more than ten minutes, but they were ten of the most exciting minutes I ever passed, and I must confess to an unbounded feeling of relief, when at 8.20 we got on to the rocks, and, being then in safety, halted to take breath after our effort. We had scarcely been half a minute on the rocks, and were still panting with our exertions, when our attention was drawn to a cracking noise in the broken glacier beneath which we had passed, which seemed to indicate that something remarkable was about to happen. We had hardly time to look up, when an enormous tower of ice, the dimensions of which I cannot estimate, became loosened from the contiguous mass, tottered for a moment on the brow of the precipice, and then, heeling over slowly and reluctantly, dashed with a thundering crash on to the slope below, and rolled, in a thousand pieces of various sizes, right across our late path. Before we had time to recover from the astonishment caused by this sight, a second and even larger mass burst the bonds which restrained it, and, following its predecessor, swept down with a resistless violence which nothing could have withstood. We were standing at a distance of about two hundred yards from the base of the precipice, which was perhaps, five hundred feet in height, over which the fall occurred, and I don't suppose it ever before fell to the lot of any

one to witness two avalanches on such a scale in such proximity. It was simply the most wonderful sight of the kind I have ever seen in the Alps, and impressed us the more at the time, as we reflected that we had escaped 'by the skin of our teeth' from a still nearer acquaintance, which would scarcely have been so agreeable. As regarded the success of our expedition, it was fortunate that the falls occurred after and not before we had crossed the slope, as, in the latter case, I feel sure that neither of the guides would have allowed us to risk the passage.

After a halt of five minutes, we started up the rocks, which were at first very shaly, so that we went up two feet and down one at every step, but this formation did not last long, and we were soon at the foot of the great wall supporting the upper névé of the Bies Glacier, which is named on the Federal map 'Freiwänge.' The look of this tremendous barrier was most formidable, but well away to the right was a couloir, which appeared to offer a more or less difficult route to the top. To get at this, however, a considerable détour would be necessary, which we did not fancy, and, moreover, we had an idea that the Frenchmen must have descended somewhere in that direction, and had no desire to follow in their steps. Almer, after taking a good look at the rocks, expressed his opinion that we could get straight up, keeping tolerably near to the side of the glacier, and, as that was undoubtedly the most direct course, we determined on it, and committed ourselves to his able guidance. Above the bank of shale a steep slope of soft snow abutted against the face of the cliffs, and offered a means of reaching what appeared to be their most accessible point. Up this we zig-zagged, but, on gaining the top, found that the warmth of the rock had caused the snow to melt, leaving a narrow and treacherous edge, separated from the crags by a profound chasm. This, though rather broad, would have been easily crossed, had the snow on our side not been so insecure, threatening to fall away under our weight, and had the rocks beyond been better; but they were steep and smooth, and made more slippery by a small fall of water which inconsiderately chose this as its line of descent. How Almer contrived, unaided, to get across, I know not, but he did manage, and, scrambling up a few feet, estab-

lished himself securely, and pulled us over one after the other. Thenceforward we were fairly committed to the climb, which speedily resolved itself into one of the most thoroughly break-neck pieces of scrambling I ever took, surpassing in difficulty even the well-remembered rocks of the Pic des Ecrins. It soon became evident that our rope was much too short, so we effected a junction between mine, which was 100 feet long, and Morshead's, which was 70 feet, and brought the whole into play, Almer going ahead with a space of 50 feet between him and myself, while Morshead, Perren, and Gaskell followed, at intervals of about 40 feet. We were not ascending a couloir, but mounting along an exceedingly narrow and broken ledge on the face of the precipice, which occasionally died away altogether, leaving us to find a way up the smooth wall as best we could. While Almer climbed we remained steady, until he found a position where he could make himself *fest*, and help me up by the rope. This rarely happened until he had gone the full length of his tether, and the rope was so taut that necessity compelled him to hold on by his eyelids, while I advanced a few steps. The same game went on below; while Almer was climbing and I was steady, Morshead scrambled up towards me, Perren holding hard, and a similar manœuvre was carried out by the latter and Gaskell. Perren has the reputation of being a courageous man, but on the present occasion he was undeniably nervous, and was unable to render much assistance to Gaskell, his reply, when appealed to now and then to advance or retreat a few steps, as the case might be, being, 'Monsieur! je ne puis pas, je suis dans un mauvais endroit,' an undoubted fact, but one which was equally true of the rest of the party. However, Gaskell fortunately got on very well, and, indeed, we were all compelled to rely almost exclusively upon ourselves individually, the rope round our waists, though it was doubtless a security, giving us but little real assistance, every man's hands being so engaged in holding on, that they had little leisure to lend a friendly pull at the connecting cord.

We were for the most part quite invisible one to the other; Morshead could not see me, and from the time we began to climb in earnest, until we reached the top of the rocks, I scarcely

caught a glimpse of Almer, a state of things which added materially to our difficulties, as, except verbally, it was impossible for him to give us any directions as to the exact track we were to follow. The slowness of his progress, however, from point to point, prepared us for the difficulties we in turn had to overcome, and the emphatic 'Nein! nein!!' with which he generally responded to my occasional inquiries as to whether I should advance before all his rope was paid out, sufficiently betokened the insecurity of his position. It generally happened that we were detained longest at the most awkward points. Once especially, I was kept a long time in a most objectionable position, hanging on till my arms ached, with my legs wide apart, while a small stream of snow-water was flowing over me, and finally wetted me to the skin. During the whole time we gradually bore to the left, that is to say, towards the glacier from which, though we could not see it, we were never very far distant, and we had the satisfaction of hearing our friends, the avalanches, tumbling away in grand style. I shall make no attempt to describe particular difficult points, the probable nature of which can be easily guessed by any one who has climbed, or even seen, a really steep wall of rocks; suffice it to say that I never was on a place where the climbing was so continuously bad, and where the level bits on which we could conveniently 'rest and be thankful' were so few. But, in spite of the arduous nature of the ascent, we thoroughly enjoyed it. The very magnitude of the difficulties to be overcome had an exhilarating effect, and, as we were all in peculiarly good trim, we went at our work, confident in our ability to bring it to a successful conclusion. At length, a howl from Almer indicated that he was near the top, and immediately his voice was heard confirming the fact, and urging us to come on as fast as we liked, as he was in a secure position, and able to hold us all up if necessary. He forthwith began pulling at the rope with such vigour that I had to moderate his ardour, as I painfully worked my way to where I supposed him to be. As usual, the last steps were peculiarly bad; but, after rounding a specially unpleasant corner, which would have been convenient for a person of suicidal disposition, I came upon our gallant leader's outstretched hand, its owner

being comfortably moored in a narrow cleft, from which I really think 'all the king's horses and all the king's men' could not have drawn him against his will. In order to facilitate the ascent of the others, I passed behind him and cast off the rope, scrambling up the few remaining feet of rock, kicked steps in the short steep bank of snow above, and found myself standing at the edge of an almost level, spotless field of névé, the upper plateau of the Bies Glacier, on which, at 10.30, we were all assembled.

We had fulfilled our threat of keeping a direct course, as we had landed close to the southern extremity of the Freiwänge, to the end of which ran Almer to reconnoitre the glacier that we had circumvented. He was of opinion that we could have mounted by the ice, and, I rather gathered from his tone, with less actual difficulty than by the route we had followed.* I think that it would be almost impossible to *descend* by the way we had mounted; certainly the idea would never occur to any one looking from above, as I never saw a more frightful-looking place, the ledges along which we had climbed being quite undistinguishable, and a smooth wall of rock appearing to sink to an untold depth. I may mention here, that we met Franz Andermatten subsequently at Zermatt, and that he would not believe it possible for us to have scaled the cliffs at the point we did, and at the same time told us that he had passed much further north, nearer the Brunegghorn. The Col was still invisible, hidden by a low spur from the last-named peak, but we knew that our difficulties were over, and, gathering up our rope, started across the plateau, the snow on which, in spite of the blazing sun, was in good order, rounded the aforesaid spur, and instantly came in sight of our goal to the right of us. Only a few gentle slopes intervened between us and it, which were quickly traversed, a small patch of shaly rocks was scaled, and at 10.55 a.m. we gained the Col of the Biesjoch, and looked

* In 1866, Mr. Walker's party crossed the Biesjoch and reached the Col entirely by the glacier, without any difficulty, or even the necessity of being roped together. But this must be considered an exceptional piece of good fortune, to be imputed to the incessant bad weather of that season, and consequent mass of snow.

down upon the head of the great Turtman Glacier, which was separated from us by a short, but very steep, ice-wall.

The view from the Col was scarcely so extensive as we had expected from its height of 11,645 feet, the most interesting part of the Oberland being largely shut out by the group of which the Ausser Barrhorn is the highest point, while, in the opposite direction, everything west of the Breithorn was concealed by the great mass of the Weisshorn. The latter mountain, however, was a most superb object, seen in close proximity, on the other side of the broad 'cirque' of névé, at whose northern edge we were standing. We were in the most favourable position for examining the whole length of the eastern arête, by which the ascent has always been made, but the slopes below it presented a marked contrast to the appearance they offer on the side of the Schalliberg Glacier. On that side they are cut away in formidable precipices of bare rock, but towards the Bies Glacier not a rock is visible, slopes covered with névé, of great length and steepness, stretching uninterruptedly from the crest of the ridge down to the glacier. Almer declared that it would be possible to go straight up the side of the mountain by these slopes, and hit the arête at a point close to the summit, and we agreed with him, but in some places there would be risk from avalanches, where the slope is broken into séracs, and the difficulty of reaching the upper plateau of the Bies Glacier will always be a great impediment to the adoption of this route. As, however, it would only be practicable in a *very* snowy year, such as 1864, when the ordinary route from the Schalliberg Glacier is impassable, the rocks being more or less covered with snow, it would, in such a season, be worth any one's while to pass the night in some of the eligible holes, which are to be found about two hours up from Randa, and make the attempt from this side, descending to the Turtman Thal. The northern arête, that falls towards the peak, marked in the Federal map 4161 mètres, or 13,653 feet, looked most unpromising, nor do I think the cliffs that fall from it to the glacier could be scaled at any point; were it possible to do so, a grand pass would be made to Zinal, as the ridge was gained by William Mathews from that place in 1859 without the slightest difficulty by the

upper Turtman Glacier. The 4161 mètres peak itself is a very fine snow summit which might be reached from our Col without much actual difficulty, but the ascent might be long and laborious, as the snow-slopes and final arête are steep, and might require a good deal of step-cutting. The view of the Mischabelhörner and Saasgrat was even more glorious than from below, and the chain of Monte Rosa as far as the Breithorn was also well seen, but the nearer portion of the view was undoubtedly the most interesting.

We took up our position on the rocks just below the Col, on the south side, and for some time devoted our attention to luncheon, but at 11.20 Almer and Perren started off to cut the steps down the wall leading to the Turtman Glacier, leaving us to take our ease during the operation. The sky was cloudless, and the heat intense, far more so than I ever remember to have felt it at so great an elevation, and we soon became rather torpid. Indeed, from the suspicious eagerness with which every one subsequently accused every one else of having been asleep and snored, I am afraid there is little doubt but that we all took, at least, our forty winks. The men did not return till 12.45, having found the ice bare of snow and very hard, obliging the steps to be made very good and large. They swallowed some wine, and then, at 12.55 p.m., we left our perch, after a halt, so far as we three were concerned, of two hours.

Immediately below the Col it was quite impossible to get down, as the ice fell perpendicularly in a sheer wall, and was cut off from the névé below by a great bergschrund, so we had to bear to the left, along the face of the slope forming the base of the nameless peak 4161 mètres. I have never seen harder ice, and I could quite understand the amount of time which the cutting of the ninety steps we had to traverse had taken. I thought that they had been made almost unnecessarily large, but, if so, it was an error on the right side, and, therefore, not to be complained of. When we were at last able to turn downwards, although the slope was exceedingly steep, we soon found sufficient snow to give footing, and, working cautiously down it, we reached the bottom, passed the bergschrund, which was

choked, without difficulty, and were then on the upper névé of the eastern arm of the Turtman Glacier. On our left was a long spur coming down from peak 4161 mètres, and on our right the glacier ran up into a broad bay, at the head of which was an undeniable Col, over which we felt sure that there must be a passage (since effected by Messrs. Hornby and Philpott) to Randa or St. Nicholas, descending by the Abberg Glacier, which may be a shorter route than the Biesjoch, but can scarcely be so exciting or interesting.[4] In front of us the glacier stretched away in superb fields of névé, almost level, and perfectly free from crevasses, over which our progress was easy and rapid, the snow being in much better order than we had any right to expect at such an hour on such a day. We kept, generally, near the right bank, although in all directions the glacier appeared to be equally free from difficulty, and our way was perfectly devoid of incident and rather uninteresting, until we approached the end of the long spur before mentioned, and began to get a view up the western arm of the glacier between it and the Diablons. I had expected to see slopes of névé steeper, but similar in character to those which we were traversing, and was immensely astonished to discover instead a tremendous ice-fall, stretching completely across from the dividing ridge to the Diablons. We had always understood that there was an easy pass to Zinal in this direction, and this formidable barrier was, therefore, totally unexpected. It seemed to us, indeed, very doubtful whether a pass could be made at all, as Almer could discover no way of circumventing the ice-fall, which is very lofty, steep, and broken. The odd part of the whole thing is, that, subsequently, Mr. Hornby's party, mounting from Zinal, *did* pass from the western to the eastern arm of the glacier without the least trouble, without cutting a step, without even seeing much of an ice-fall at all, and in a very short space of time, having accomplished the distance between the Col, situated at the point above Zinal, marked 3252 mètres on the map, and the head of the Abberg Glacier, in not much more than two hours. It is certain, to my mind, that the Federal map is not perfectly accurate in its delineation of the head of the Turtman Glacier, and especially of the ridge

between the two branches of the glacier, which, in my opinion, as also in that of Mr. Hornby, is made considerably too long. The Diablons looked particularly well and very steep, but it is a regular impostor, being accessible, with great ease, from Zinal, at which place it holds a position corresponding to that of the Mettelhorn at Zermatt. We were particularly struck with the colour of the rocks on the right bank of the glacier close to which we were. They were almost white, and I have always regretted that I did not secure a piece of the stone for more learned persons than myself to examine.

The snow at last became rather slushy, so that it was a relief when we passed on to the bare ice of the glacier proper, below the névé, over which we were able to put on a spurt, Almer capering away in rare style. At 2.10 we came to a point where the glacier curled over rather steeply, and produced, in consequence, a mild ice-fall, through which we might have descended without much trouble, but the 'gazon' on the right looked tempting, so we made for it. We had to cross the lateral moraine, which, owing to the nature of the rocks above referred to, was the cleanest I ever saw, and presented a marked contrast to the great medial moraine, which takes its origin in the ridge dividing the glacier, and is an uncommonly dirty gentleman. The appearance of the western or Diablons' branch below the great ice-fall was most remarkable. It seemed extraordinarily smooth and uncrevassed, and arranged in most curious folds, looking like a cigar split in half, and placed with the convex side uppermost, the comparison, of course, not holding good as regards colour. The moraine, just above the point where we were, was in a most excited state, and sent down showers of stones to the lower level, so that we scrambled across as quickly as possible, and were not sorry to find ourselves again on firm ground, where we halted for ten minutes to take off the rope. We feared, at first, that we had, after all, made a mistake in quitting the glacier, as below where we were standing there was an abrupt fall in the ground; but we soon discovered a rather steep, but practicable, gully between the moraine and the cliffs, which took us, without any difficulty, to the comparatively smooth ground below. The glacier below the fall looked so

level and easy, that it was irresistibly tempting; so, instead of keeping along the grass-slopes, which would have given rather rough walking, we turned down them, and at 2.40 again got on to the ice. Nothing could have been easier than our route, until we neared the end of the glacier, when it began to be rather cut up by crevasses; so, after picking our way amongst them for a short distance, we gave it up, and, making for the right bank, got on to the 'gazon' once more, at 3.10.

A very faint track soon presented itself, along which we hurried, until we had fairly left the glacier behind us, which at its termination is completely covered from one side to the other with moraine, and found ourselves at the head of the Turtman Thal. The track very soon died away, leaving us in doubt which side of the torrent we ought to keep to, but, as we knew that the Gruben Alp, whither we were bound, was on the right bank, and I was under the impression that, when I had ascended the valley in 1861, I had throughout kept to that bank, we determined to adopt the same course now. At 3.30 we came to the first spring, and, as we had not tasted a drop of water for more than ten hours, a short halt to indulge was, of course, unavoidable. The tap was delicious, but at 3.45 we tore ourselves away, and resumed our old direction. We were getting more and more uncertain as to our proper course, when the question was suddenly settled by our coming to the brow of a cliff, which entirely prevented further progress along the right bank. Accordingly, we retraced our steps a little, and then, striking down to the side of the stream, found an opportune bridge, which took us across to the left bank, close to a group of chalets, still unoccupied. Our troubles, such as they were, were now over, and we had a most delightful walk down the valley, which, though the least visited, is, I think, in itself the most charming of all the great southern tributaries of the Valais, and totally different in character from its two neighbours of St. Nicholas and Anniviers. Though the general scenery is more savage, yet the Alps are greener and more extensive, and the forests, notwithstanding that sad inroads have been made upon them, still clothe the sides of the valley with a dense belt of vegetation, but the comparative inferiority of the

glacier scenery at its head, although the Turtman Glacier is one of the largest in the Alps, will sufficiently account for the paucity of visitors, few of whom care really to explore the numerous fine points of view within easy reach of Gruben. After a pleasant ramble over extensive pastures, we again crossed to the right bank of the stream, and, at 4.30, came to the chalets of Blummatt, where we found the cows, and got some milk, the consumption of which occupied till 4.45. The path onwards was rather vague, but, such as it was, we pushed on rapidly over it, and at 5.15 p.m. reached our haven, the little Hotel du Weisshorn, on the Gruben Alp, the passage from Randa having occupied fourteen hours and a quarter, but only eleven hours and a half actual walking, so that we had 'wiped the eyes' of the Frenchmen considerably.

The position of the inn is most charming,—on a verdant Alp, on which a large number of cows were grazing, at an elevation of more than 6000 feet. Though not very large, it is very comfortable, the bedrooms being models of cleanliness, and the 'cuisine' would shame many more pretentious establishments. We had the place to ourselves, and, I suppose, in consequence of no one having been expected, it was some time before our dinner was ready; but, when it did finally appear, it turned out most excellent, and we did full justice to its merits. The evening was lovely, the sky being absolutely cloudless, but after the sun was down, we soon retired, as our day's work had been sufficiently long and fatiguing, and the idea of bed was pleasant to us all.

Saturday, 16*th July*.—At 4.0 a.m. we tore ourselves from our couches and prepared for the labours of the day, Morshead and Gaskell being bound down the valley to Turtman, *en route* to Vevey and Chamouni, while I had to find my way over to the Val d'Anniviers and Zinal. Of course, I ought to have gone up and explored the western arm of the glacier, and tried to make a pass over it, but, truth to tell, I was lazy, and more inclined, for once in a way, to tread the footpaths of civilisation, than to make a path for myself, so I determined that Almer and myself would go over the Pas de Bœuf, and, if we felt so disposed when the time came, wander up the Bella Tola *en route*. Breakfast was as creditable a meal as last night's dinner had been, but

was soon finished, and, at 5.30 a.m., after bidding farewell to Morshead and Gaskell, with mutual regrets that our pleasant week's ramble could not be prolonged, Almer and I started on our solitary way.

The former had obtained information as to our route from some of the herdsmen, but, as the event proved, it wanted the essential element of correctness, and, as we had unfortunately no map to verify it, might have been dispensed with to advantage. Crossing the stream immediately opposite the inn, we forthwith entered the forest on the opposite side of the valley, which we found full of cows, on their way up to the higher pastures. There could not have been less than two hundred animals, magnificent beasts, and the sight was most picturesque, but, as they occupied the path to our exclusion, we were glad to part company, so put on a spurt until we had passed ahead of them. The path through the wood, though steep, was good and pleasant to traverse, and we were almost sorry when we finally emerged from amongst the trees on to the open pastures above, on which are situated the chalets of Z'Meiden, whither our horned friends and their keepers were bound. We had already risen to a considerable height above the valley, and overcome the steepest part of the ascent, the Col being in full view at the head of a dreary glen, which stretched away in front for a long distance. Looking back across the valley, we commanded a view of several precisely similar glens, leading up to depressions in the ridge, over one of which goes the pass of the Jungjoch to St. Nicholas. To our right the eastern arm of the Turtman Glacier could be traced from the Bies Pass at its head to the moraine at its foot, while away to our left, but much more distant, on the further side of the valley of the Rhone, the noble peak of the Bietschhorn, the guardian of the Lötschen Thal, was seen to singular advantage, and to the west of it the remarkable level field of névé, which covers the ridge of the Petersgrat. The glen along which lay our route was not remarkable, but was dominated on the left by a curious detached rocky peak,[5] which, though of no great elevation, looked so utterly inaccessible, that we were astonished to discover a stone-man, evidently raised by hands, on the top of it. Indeed, the

number of these isolated pinnacles is one of the great features of the scenery of the country between the Turtman Thal and the Val d'Anniviers. They are almost without exception crowned with cairns, probably erected by the herdsmen in the chalets on either side in their idle hours, as no traveller would take the trouble to scramble up them. We kept generally towards the left side of the glen, following a path which, though vague in places, was always easily distinguishable, and whose direction was pointed out by a line of stonemen, placed on the several eminences which were passed in succession. At 7.15 we came upon a rather extensive lake, which, in spite of the tolerably advanced period of the season, was filled with masses of snow and ice floating about, and was a very picturesque object. Thenceforward our way lay over gentle slopes of shale, varied by large patches of snow, until we reached the foot of the last ridge. This was bare of snow, and the path was carried up it in a succession of long, well-defined zig-zags, which brought us to the Col at 7.40, or in little more than two hours from Gruben.

Supposing that we were on the Pas de Bœuf, we expected to see the Bella Tola immediately above us to the north, but our astonishment was great when we discovered it, in the expected direction certainly, but so very distant that it was plain we had made a mistake. In point of fact, we had come to the Z'Meiden Pass instead of the Pas de Bœuf,[6] which is the next depression in the ridge to the north of the one we were standing in, and separated from it by several rocky peaks. To get at the Bella Tola from our position, we should have to make a long détour over the shoulders of divers hillocks and dreary slopes of shale, an amusement for which we had no particular fancy, so we resolved to abandon the idea. Still, though the view from the Col was very good, I was anxious to see something more, especially towards the Oberland, so I suggested to Almer that we should try and get to the top of the nearest of the before-mentioned rocky peaks to the north of us. He thought the idea a good one, so at 8.0 we turned along the ridge towards it. The ridge was wonderfully shattered, and covered with loose blocks of stone, which a very slight touch sufficed to set in

motion, but there was not the slightest difficulty in passing along it, and, skirting an outlying point, which appeared in a most fragile state and likely very soon to contribute its quotum to the sea of ruin on either side, we soon stood at the foot of our peak. This appeared so very steep, that we began to think we had reckoned without our host, and should not get up after all, so Almer went ahead to reconnoitre. He did succeed, with some difficulty, in scrambling up the worst bit, and, having effected a lodgment, called upon me to follow. When I got to the foot of the cheminée, he threw down the rope, and with its help I was soon by his side. The climb which ensued was rather stiff, but it was not long, and at 8.30 we were comfortably seated on the summit, which must be about 500 feet higher than the Col, of whose elevation I am ignorant.[7]

As we had expected, there were loftier points to the north of us, but we had attained our object, and opened out a view in every direction of great extent and interest, though, of course, inferior to what is to be had from the Bella Tola. The sky was perfectly clear in every quarter, except towards the Oberland, where ominously heavy banks of clouds concealed a good deal of what would have otherwise been visible; but we were vouchsafed a clear view of what I was most anxious to see, the peaks and glaciers at the head of the Lötschen Thal. Our attention was principally directed to the well-marked depression between the Tschingelhorn and the Lauterbrunnen Breithorn, to which the name Wetter-lücke is given in the Federal map, and through which, it is alleged, a pass led in former days, by a very direct route, from the Lötschen Thal to Lauterbrunnen, but it has long been considered impracticable.[8] As we hoped to make an attempt upon this deserted route, we carefully examined the glacier on the south side, and saw, as we had expected, that there would, at least, be no serious difficulty in reaching the Col from that side. Our programme also included a possible attack on the still unascended Breithorn, *en route*, but what we could see of the arête, running down to the Col, was not encouraging, as it appeared to be long, steep, and, worst of all, very serrated. In other directions the view was still more interesting. Looking over the range on the other side of the Turtman Thal, the superb

mass of the Fletschhorn, above the valley of the Saas, was very striking, while, nearer at hand, the towering forms of the Dom and Täschhorn were even more imposing. At the head of the Turtman Thal, the great glacier was exposed to us in its whole length. The Biesjoch was, of course, conspicuous, and through my glass we could plainly distinguish our steps on the ice-wall below the Col, and on the lower part of the glacier where the snow had been soft. We looked straight up the ice-fall of the western branch underneath the Diablons, but could not see so much of the field of névé which supplies it as we could have wished, it being enclosed to a great extent by several ridges radiating from the Weisshorn. Still we saw enough to confirm me in my opinion that the map, in this part of the chain, is not strictly accurate, the ice-fall especially being laid down on far too minute a scale. The peak 4161 mètres is a fine double-headed summit, but is reduced to comparative insignificance by the proximity of its mighty neighbour, the Weisshorn, of whose superb appearance I can give not the faintest idea; but, had we seen nothing else, the view of this glorious peak would alone have repaid us for our climb. To the right of it was the Roth-horn, which, though less massive, and a thousand feet lower, is an even more wonderful object, owing to the startling abruptness with which its final pinnacle shoots into the air. I never saw anything so sharp or so utterly inaccessible in appearance, and the result of a careful inspection on the part of Almer and myself was, that we determined, unless from the Arpitetta Alp, or *en route* for Zermatt, we should discover a probable way up, not to have anything to say to it, and, anyhow, not to waste time in attempts from the Zermatt side, which we felt sure must be futile.[9] It was not without a pang that we looked at the noble form of the Dent Blanche and the sharp peak of the Cornier, but our equanimity was restored as our eyes wandered to the snow-point of the Steinbock and the great billowy fields of névé at the head of the Moiry Glacier, and we thought of the unparalleled view with which we had been blessed from those heights. Amongst the confused group of mountains, occupying the district between the head of the western arm of the Val d'Hérens and the Val de Bagnes, the long ridge, whose highest

points at either end are the Mont Blanc de Cheillon and the Ruinette, was very well seen, and suggested the thought that neither of those summits, though in the heart of a most interesting district, has yet been scaled.* The valley of the Rhone could be traced nearly throughout its entire length, from the glacier at its head to the town of Martigny, and is certainly a pleasant object to look down upon, though not agreeable to traverse.

Having built a cairn upon our peak, which Almer facetiously observed ought to be christened under the decidedly euphonious title of 'Moore Spitze' (an honour which I respectfully declined), we took our departure at 9.0, after half an hour of unmitigated enjoyment. The first part of the way down required care, but the steepest bit was soon left behind, and we quickly reached the base of the dilapidated outlying peak, having passed which, we struck down the side of the ridge on our right, and, descending without difficulty, by 9.35 were fairly in the lateral glen, whose waters drain down past St. Luc to the Navigense in the Val d'Anniviers. Looking back from here, the appearance of the ridge we had just passed was very remarkable. It is broken in the most wonderful way by a succession of natural stonemen, and sharp teeth of rock of the most fantastic forms, especially along that portion south of the Z'Meiden Pass. In fact, the whole thing is gradually crumbling away, and, I suppose, every year sees some change in the form of the ridge and its excrescences. It is not unreasonable to suppose that the numerous isolated towers of rock, which are curious features in the scenery, owe their origin to the slow progress of destruction which has been going on for years, and will, in time, bring them, also, level with the ground. We at first followed a faint track over the usual shaly ground, but, as that bore gradually to the right, in the direction of St. Luc, which was out of our way, we very soon abandoned it, and struck away to the left, a line of march which shortly brought us to some chalets and a herdsman. Our hopes of milk were disappointed, the cows, as usual, being ill, but, in default, we got information as to the shortest way to Zinal, which was, perhaps, more valuable. In accordance with the directions received, we descended rapidly over good pastures, always work-

* The Ruinette was ascended by Mr. Whymper in 1865.[10]

ing to the left, until, after crossing a small stream, close to quite a village of chalets, we found ourselves at the entrance of a broad lateral glen, which opens out between the Tounot and a spur from the Roc de Budri, to the north of the Pas de Forcletta. We might have ascended this, and, crossing the low ridge at its head, fallen into the track from the Forcletta, and so reached Zinal, but, although a shorter route in point of distance than the one we actually followed, it would, probably, have required as much, if not more time, owing to the rougher character of the ground.

As it was, we crossed the mouth of this glen, and immediately hit upon a good path, carried high up along the side of the hill, between it and the main Val d'Anniviers, at 10.35. The views of the valley below, and of the little village of St. Luc on the opposite side of the glen which we had descended, were charming, and we wandered on leisurely in a high state of satisfaction. Our path wound round the hill-side, until we were fairly in the Val d'Anniviers, and looked down from a great height upon the main track below, and the dark clusters of densely-packed houses that marked the several hamlets through which it passes on its way to Zinal. The day was now exceedingly hot, so that the shelter of the woods was very pleasant, and we loitered along, looking for no difficulty, and expecting shortly to descend upon Ayer. Suddenly our path, after passing a group of chalets and a crucifix, came to an abrupt and unlooked-for termination, leaving us in a state of uncertainty what course to pursue. By striking straight down we might, of course, sooner or later fall into the main path, but the side of the valley was steep, and the path a long way below, so Almer was against this plan, and recommended in preference that we should keep along the slopes at our present level, unless forced down by the lay of the land, in hopes of eventually stumbling upon another track leading in the direction of Ayer. The adoption of this course involved a horribly rough piece of walking, over steep grass slopes and through the thin woods with which the side of the hill was here clothed; this, disagreeable at any time, was specially so in the condition of my boots, which, I feared, would hardly hold out till I got to Zermatt. However, after a long 'hiatus,' we did, as Almer had expected, fall into a rough track, which finally

resolved itself into a good path, and led us down, by a rapid descent through splendid woods, to the large village of Ayer, the first in the eastern arm of the valley.

Expecting to descend from the Bella Tola to St. Luc, where there is a good inn, we had rather foolishly not supplied ourselves with provisions, and were, in consequence, now, at 12.20 p.m., perfectly ravenous. Ayer at first sight appeared deserted, but we at last discovered a native who showed us the house of one Monsieur Epinay, where we were told we could get something to eat. Monsieur Epinay was represented by a corpulent old lady, who, after some delay, evidently to make the place presentable, ushered us into a large room, which must have been shut up for years. Bread, butter, cheese, and some tolerable red wine, were the sole resources of the establishment, but we were not inclined to be dainty, and made a hearty meal on the materials at our disposal. Then, having presented the venerable female in possession with a sum which drew down blessings innumerable on my head, at 1.0 we went on our way, with the vacuum in our interiors considerably reduced. The walk onwards up the valley was very pleasant, the scenery becoming more wild and savage at every step, and the path not being at all steep. Nevertheless, we were neither of us sorry when at 2.20 p.m. we reached the scattered chalets constituting the village of Zinal, and the little 'Restaurant des Alpes,' which is the title borne by the particular house which has been fitted up as an inn. Winkworth, to my surprise, had not arrived; so, after a party of Germans had taken their departure, I had the place to myself, which, considering its size, was an advantage. Though even more unpretentious than the inn at Gruben, it is as scrupulously clean, and the 'cuisine' is even better, if I may judge from the dinner with which I was served in the evening, the discussion of which, and a subsequent stroll a little way up the valley, sent me to bed at an early hour, in a state of great internal satisfaction.

[On July 5th, 1872, Moore and Horace Walker, with Melchior and Jakob, started from Zermatt for the Weisshorn. The route chosen was that first made by the late Mr. Hathorn Kitson in 1871, by the Bies Glacier and the north ridge. This expedition had very unfortunate results for Moore, for while standing with

the rest of his party discussing a crevasse, he tripped and slipped down, dislocating his shoulder. The immediate consequences of the accident were of course unpleasant, although it will be seen from p. 428 that he was able to render a very good account of himself, in spite of it, for the rest of the season. But in later years the effects made themselves more felt, and his journals show that he became unable to use his left arm for climbing for fear of throwing the joint out again, and was compelled therefore to give up altogether rock climbs such as might have compelled him to use both arms freely.

The following is the account of the accident which he wrote in his 1872 Journal :—]

Friday, 5th July (1872).—The next item in our programme was the ascent of the Weisshorn—an expedition which Walker had already made once by the ordinary route of the Schalliberg Glacier; partly on this account, partly for the sake of comparative novelty, we had decided to try the route by the Bies Glacier which was last year made for the first time by Kitson with Almer, and repeated shortly afterwards by Coolidge. When crossing the Biesjoch in 1864, I had examined the north-eastern face of the mountain with some attention, in view to the possibility of an ascent from that side, and was rejoiced now to have the opportunity of renewing my acquaintance with a very interesting corner of the Alps.

As it would be necessary to bivouac somewhere in the open by the side of the Bies Glacier, and we were unwilling to burden either ourselves or the two guides with heavy loads on a hot afternoon, Franz Biener was engaged as porter, and sent down to Randa in the forenoon with Melchior and Jakob, who were authorised to pick up a second man there. We followed in a char at 1.25, and at the end of an hour's drive found our retainers waiting for us laden with blankets, provisions, and the miscellaneous impedimenta usual on such occasions, the heaviest portion of the load being borne by the second porter who had been engaged, a sturdy fellow named Schaller.

We set off at 2.35 and, after crossing the Visp, followed the by me well-remembered sheep track which winds over the waste of débris caused by the torrent of the Bies Glacier, and then climbs the steep and broken grass slopes on its left bank. Mounting steadily, we came at 5.30 to a spot which seemed to us made for the purpose of a bivouac—a hollow on the hill-side

under an over-hanging rock, facing the Saasgrat, and looking down upon the lower part of the glacier, of which the central ice-fall swept round a projecting spur of rock in a grand tangle of séracs. The barometer reading (22″) made out the height to be about 8,500 feet, or nearly 5000 feet above Randa. There was no object in going further, so the baggage was thrown down and the men set to work to make the place comfortable and prepare supper. We, meanwhile, devoted ourselves to the unalloyed enjoyment of the scene before us, which was one of great magnificence. Exactly opposite, on the other side of the valley of Zermatt, was the central group of the Mischabel, comprising the three peaks of the Nadelhorn, Dom, and Täschhorn, rising above the three glaciers of Hohberg, Festi, and Kien, a grand wall of precipitous rock and snow, with at its base three wonderfully crevassed ice-streams. Away to the right towered up Monte Rosa, the Lyskamm, and the Zwillinge, while at our feet, from which the ground fell away steeply, was visible the village of Randa, in pleasantly suggestive contrast with our immediate surroundings.

The evening was one of those absolutely perfect ones which are rarely vouchsafed to an Alpine wanderer, the sky cloudless, the air calm, and the sunset prophetic of similar weather on the morrow. What wonder that when, after supper, we turned into our blankets and courted sleep, we were filled with a delicious feeling of content, unmarred by the faintest doubt as to the success of our expedition, which seemed indeed, a foregone conclusion.

Saturday, 6th July.—We were not at all inconvenienced by cold, but none the less welcomed Melchior's call to breakfast at 1.50, and enjoyed the good fire which he and Jakob had made up. At 2.40, when it was still dark, we bade farewell to Biener and Schaller, and started. The weather continued perfect, there was not a breath of air, and the heavens were wholly unclouded. The ground above our *gîte* was very rough, and the way in the gloom was something of a scramble, but the gradual approach of dawn made things easier. At 3.20 we were by the side of the glacier and passed on to it over a mass of avalanche débris, pausing for a moment to admire the peak of

the Weisshorn, which appeared as a cone of burnished silver projected against an intensely illuminated sky—the body of the mountain was invisible; all that was seen was the summit, rising apparently straight from the brow of the ice-fall. As we made our way towards the central part of the glacier, the sun rose. In all my Alpine wanderings I have never witnessed so gorgeous a daybreak, or such wonderful effects of colour. The eastern sky was an absolute green, the depths of the crevasses all round us were yellow, the shadows on the surface of the ice were a misty blue, while, simultaneously, the summits of the Weisshorn, Dom, and Monte Rosa were suffused with a roseate tint, of delicacy unparalleled in my experience of similar scenes. Although Melchior and Jakob both have rather more than a guide's average appreciation of the beautiful in nature, they rarely speak on such a subject, but even they could not repress the enthusiasm which the really unique splendour of the morning stirred in them.

The central part of the Bies glacier below the upper ice-fall is much crevassed, and at 4.20 it was thought prudent to put on the rope. In such a snowy season we had calculated with some confidence on being able to reach the névé plateau at the base of the Weisshorn by way of the glacier, without being driven to take to the difficult rocks on its left bank which I had climbed with Almer and Morshead when crossing the Biesjoch in 1864; and, although the details of the route were not obvious, the general aspect of the ice-fall, which we were now beginning to penetrate, seemed to justify this expectation. For some distance at any rate we made good progress. We were stopped, however, rather suddenly by a line of ice cliffs, breaking into séracs, which completely barred the way on the line we were following. Jakob did indeed point out what seemed to him a practicable breach in the fortress, but neither to Melchior nor to us did it at all commend itself—on the contrary, we agreed that a more repulsive-looking place could not be, and that to attempt it would probably be to bring a sérac down on our heads. Retracing our steps, therefore, a short distance, we struck to the right where the ice-fall, though more broken, was less steep. In this direction, also, we were

soon brought up by a crevasse which, though perhaps not beyond a jump, required some looking at before being accepted as practicable—at all events for me who am not good at that sort of thing.

From the lower edge on which we were standing the ice fell away at a very moderate angle, and we were calmly discussing the feasibility of the suggested leap, when, all of a sudden, from no cause that I can call to mind, I tripped and fell. I had merely to let myself fall, and no possible harm could have ensued; at the worst I might have slid down the gently sloping glacier until stopped by the rope long before reaching the next crevasse below; but, unfortunately, as I fell I instinctively threw my left arm out, it caught over the edge of the crevasse, to which I naturally clung, and as I swung round on my side with unexpected heaviness, was exposed to a sudden and very violent strain. The pain for the moment was intense, but I did not on the instant realise the full extent of the disaster; it was only when I found myself unable to move the limb that the horrid truth flashed upon me that my shoulder was dislocated. So little alarming was my tumble that the others paid no attention to it, and my remark that 'something had happened to my arm' was the first indication they had of anything wrong.

Melchior has, in his time, had some experience of this sort of accident, and flattered himself that he would be able to repair the injury, but his operations merely caused me great agony without other result, and it was soon clear that his rough and ready surgery would not serve, and that I, at any rate, must descend to the valley for aid. Unluckily I could not go down alone, and there was, consequently, no alternative but a general retreat. Walker, as usual, treated his own disappointment lightly, and concerned himself only with my misfortune, but I fairly cried with vexation. A sling having been rigged for my arm, we started down at about 5.30. A slow and painful business was the first part of the descent—down the steep and broken glacier, and over the rough ground above our *gîte*, as every jar sent a thrill of acute pain through me, and jars could not be avoided, in spite of the tenderness and care of the two

men who supported and paid me out with the rope in the awkward places. As soon as we were clear of the glacier, Walker went ahead to make the best of his way down to Randa and thence to St. Nicholas in order to get hold of Dr. Metcalfe, the well-known surgeon of Geneva, who was known to be there in attendance on a gentleman (Professor Oakeley) who had been thrown from a char some weeks before and frightfully injured. Meanwhile, we followed leisurely. The going, below the *gîte*, was less difficult, and thanks to the rope which the men managed with great skill, I got down with comparatively little suffering, though some stumbles could not be avoided; but it was an immense relief when, at 11.30 we reached the grassy Alp on the right bank of the stream below the village of Randa.

As it was impossible for the doctor to arrive yet awhile, I preferred lying on the grass in the sunshine to going into the rather squalid inn; so made myself as comfortable as might be until 2.0., when a char appeared on the road up the valley in which Melchior recognised from afar Walker and Dr. Metcalfe, and we went up to the inn. The operation of reducing the dislocation, in spite of rather formidable preliminaries, was simple and painless. I was seated in a chair—my shirt having been taken off, an operation which cost me many twinges—a bandage was fastened round my body the end of which was confided to Jakob with instructions to pull when he was told; another bandage was attached to the wrist of the injured arm, and confided to Walker with similar orders; Dr. Metcalfe then raised the arm into the proper position and kept it there while my two supporters, one on one side, one on the other, pulled steadily; there were a few moments of suspense, and then a sharp 'click,' like a key turning in a lock, announced that the joint was replaced. As a test, I was allowed to lift my arm above my head, but it was then consigned to a sling and bandaged to my body, so as to be incapable of movement, a position which Dr. Metcalfe said must be retained for a fortnight, any use of the limb for climbing being prohibited for a month at least. This was indeed a blow, shattering all our plans, of which the Matterhorn, Dent Blanche, and Combin had

been the next important features. For the moment we were completely stunned and incapable of thinking what was best to be done.

At present we had to get to Zermatt, whither we started in a char after cordial thanks to Dr. Metcalfe, who ordered me to come to St. Nicholas on Monday that he might see how things were going. We drove up to Zermatt at 5.15 where a most sympathetic reception from excellent Mr. Seiler and his wife awaited me, rumours of disaster having, of course, spread. Amongst the not very numerous tourists present—not including, as it happened, any mountaineers—the predominant feeling was certainly one of disappointment at the moderate extent of the disaster, as to which the wildest reports had been current, and I was regarded almost in the light of an impostor, a feeling which was intensified by my performance at dinner, where single-handed I contrived to get through at least my share.

NOTES TO CHAPTER XI

[1] The gentlemen referred to are the Baron de St. Joseph and the Comte de Burges, who made the first crossing of the Biesjoch on 31st July 1862. (See *Alpine Journal*, vol. i. p. 376.)

[2] The ascent of the Nadelhorn from the Randa side was not accomplished until 1882, when Messrs. Ellerman and Passavant both ascended from and descended to the Hohberg Glacier. The climb is described in the *Alpine Journal*, vol. xi. p. 175.

[3] It will be well for any one following in Moore's footsteps to remember that he was an exceedingly fast and active walker, and that very often the 'times' even of excellent pedestrians will be a good deal longer than those which he gives.

In 1870 he was at the Riffel, and on the 15th July started at 1.45 a.m. for Monte Rosa, with Jakob Anderegg for sole companion. The Zermatt guides of another party objected to Jakob's route across the Glacier, and were soon left behind on a route of their own. The saddle was reached at 8.5 and left at 8.35, just as the second party reached it. Jakob had been somewhat piqued by the Zermatt guides, 'and now confided to me* that the idea of having to cut a staircase for their benefit while they luxuriated on the rocks vexed him. "If," said he, "you feel in good trim, I will take very long strides and make very small steps; they will do well enough for us, and if they don't suit the others that is their affair, and we will go as hard as we can." I replied, as was the case, that I felt unusually fit and confident in my own powers, and that he

* Moore's MSS. Journal of 1870.

might go as he pleased: I should be all right. So up he went along the upper part of the snow, just below the ridge, making mere gashes in the surface at intervals, the length of which certainly tried even my fairly long legs, and at a rare pace.' Under these conditions they reached the Höchste Spitze, 15,217 ft., at 10.5 a.m., 'so we had been only an hour and a-half in climbing from the saddle, a result which caused honest Jakob's face to beam with satisfaction, which became more pronounced later on when he caught sight of the Zermatt men painfully hewing huge steps in the higher of the two snowy curtains.' They left the top at 11.5, reached the saddle at 12.15, left it at 12.40, and were at Auf der Platte at 2 o'clock. 'From that point we took things easily and did not enter the hotel until 4.10, after one of the finest and most successful days I ever had on a mountain. It was not only that the expedition had itself been interesting and the weather perfect, but I had the pleasant consciousness that the work had been accomplished in good style. The main credit was of course Jakob's, but a little self-complacency on my own part was perhaps excusable under all the circumstances.'

[4] The Col referred to is the Brunneggjoch (11,099 feet), first crossed by Messrs. Hornby and Philpott a fortnight after Moore's crossing of the Biesjoch. (See *Alpine Journal*, vol. i. p. 432.) The pass crosses the north-west ridge of the Brunnegghorn, and descends to the valley at Herbriggen, about three miles below Randa.

[5] This peak is obviously the *Meidenhorn*, 2873 mètres (9427 feet).

[6] The *Pas du Bœuf* is about a mile north of the Z'meiden Pass, and the two passes are about the same height and very similar in nature.

[7] The height of the pass is 2772 mètres or 9096 feet. The rocky point reached by Moore has a height of 2932 mètres or 9620 feet, so that it is about 524 feet higher than the pass. It is about midway between the two passes mentioned in the last note.

[8] See chapter xiv.

[9] For a view very similar to that from the Z'meiden Pass, see heading to chapter xi.

[10] The Mont Blanc de Cheillon or Seilon (12,701 feet) had already been climbed as long ago as 1854, although no account of the ascent had been published in England. Whymper's ascent of the Ruinette (12,727 feet) took place in July 1865. The arête between the two mountains, however, was not traversed until 1892, when Professor Oliver succeeded in making this difficult scramble for the first time (see *Alpine Journal*, vol. xvi. p. 261).

CHAPTER XII

THE MOMING PASS

Sunday, 17*th July* (1864).—I was awoke in the night by a violent storm of thunder, lightning, rain, and wind, so that it was an agreeable surprise, when I finally roused up at about 8.0 a.m. to find a fine bright day and an almost cloudless sky. There were no signs of Winkworth, and I found time hang rather heavily on my hands, but a catechism of French history, which was the only book in the place, afforded me some amusement. I learnt from it some curious facts of which I had previously been ignorant, amongst other things that, at the battle of Talavera, during the Peninsular War, an army of English and Spaniards, 90,000 strong, had been totally defeated by 26,000 Frenchmen. Although Zinal is the point of departure for some of the grandest excursions in the Alps, there is not much to be seen from the place itself, the lower portion of the glacier, which is in comparative proximity, being so covered with moraine that it is scarcely distinguishable from the slopes on either side. The most prominent peaks visible are the Diablons, immediately

opposite the inn, and Lo Besso above the right bank of the glacier. The latter is a remarkable object, a fine obelisk of black rock with a double summit. The highest, or northern, point, which rises to a height of 12,057 feet, has never been scaled, but the southern and contiguous point, which is only sixteen feet lower, has been reached by some hunters from Zinal, who have raised a cross upon it, which, with a glass, can be clearly seen from the valley.[1]

Of the difficulties likely to be encountered in the attempt to reach some point on the long ridge[2] connecting the Weisshorn and Rothhorn, I could get no reliable information from the natives. The general impression appeared to be that it was not possible to get up, but as no one, apparently, had ever tried so to do, public opinion was not worth much. Mr. Ball, in 1859, first suggested the possibility of effecting a passage between Zinal and Zermatt in this direction, but no one took up the idea, and so, while passes of every variety of difficulty and degree of uselessness were being made in other parts of the Alps, the ridge at the head of the Moming Glacier remained unscaled and unattempted.

The reputation of utter inaccessibility attaching to this portion of the chain may account for this neglect, added to the fact that it was scarcely probable that any route would be found either shorter or grander than the two established passes of the Triftjoch and the Col Durand. I had mentioned my project to Melchior at Zermatt, but had not received much encouragement from him. On the contrary, he expressed himself in the strongest terms against the plan, assuring me that he had carefully examined the place, and that we might take his word for it, it was not possible to get up,—we might risk our lives, but we should never be able to cross any point of the ridge between the Rothhorn and Weisshorn. I was, therefore, by no means sanguine of success, but consoled myself with the reflection that even the best guide is liable to be deceived in the nature of a place which he has not actually tried. Shortly after noon Whymper and Croz arrived, and their appearance was the more welcome from being rather unexpected, as, although I had asked Whymper to join me on the contemplated expedition, it

had been doubtful whether he would be able to 'come to time.' He brought news which sufficiently accounted for Winkworth's absence, viz., that he was ill at Zermatt—a most unfortunate contretemps, as I knew how anxious he had been to make the proposed passage. On looking at my boots, I was horrified to find only one nail in one and three or four in the other, and inquiry elicited the alarming fact that there were none suitable for the purpose to be had in Zinal. It was really a serious matter, as we might come to places where the safety of the whole party might depend upon the sureness of foot of each individual member of it. Almer, however, made vigorous search, and succeeded in finding enough to raise the number in each boot to six, a mean allowance, certainly, but they were arranged so as to be as effective as possible. We dined early, the *pièce de résistance* being some chamois, about which I had my suspicions when I heard that it had been brought in by my friend Jean Martin, but that worthy assured me that the one we had found *dead* on the Moiry Glacier had been devoured by foxes, and that he had *killed* the one we were eating only yesterday. However this may have been, I cannot honestly say that it was either tender or palatable.

We meant to have got off by 2.30, but there was a long delay in getting the bill, and it was, consequently, 3.25 p.m. before we actually started for the Arpitetta Alp, where we were to pass the night. We soon crossed to the left bank of the stream, and made for the foot of the Zinal Glacier. It is necessary to adopt this course, as the cliffs below the Alp, which is above the right bank of the stream, are inaccessible *en face*, and, in order to turn them, the gorge through which the drainage from the Moming Glacier pours must be ascended. At 4.20 we came to the foot of the Zinal Glacier, and, after following the track along its left bank for a few minutes, struck down to the moraine which stretched right across to the other side. In the ticklish state of my boots, I had looked forward to the passage of this with perfect horror, and it was, therefore, an agreeable disappointment to find a rough, but well-defined, path over the piles of débris. This is kept up for the convenience of the cows on the Alp but must require almost daily repair, as

the motion of the glacier must unavoidably damage it. Anyhow it provided us with an easy route to the right bank, on reaching which, we at once commenced a steep climb along the gorge above mentioned. As we mounted, the view of the Zinal Glacier increased in grandeur at every step. The Dent Blanche was concealed by clouds, but the Grand Cornier, Steinbock, and Pigne de l'Allée were clear, and showed a line of precipices that was most imposing. At 5.10 we reached a group of clean and tempting-looking chalets, which were, however, unoccupied, and we, therefore, inferred that the cows had gone up higher, and prepared to follow them. We, somehow, managed to get out of the track, but kept along the hill-side, rising very gradually, the Moming Glacier opening out broadly and grandly in front of us as we advanced, backed by the wonderful cliffs of the Weisshorn, Schallihorn, Rothhorn, and Lo Besso. The tops of the peaks were in the clouds, but we saw enough to lead us to believe that the scene presented by the amphitheatre which we were entering has few equals in the Alps. From all accounts, that which is to be had from the Belvedere in the Macugnaga Glacier *is* superior, but the cliffs of Monte Rosa, though more colossal, are not so precipitous as those of the Weisshorn.

The Moming Glacier is perfectly different in character from that of Zinal; the latter is a long, sinuous ice-stream, while the former is of immense breadth, but has comparatively little length, terminating in a steep tongue of ice, which dies away in the midst of a track of débris, that indicates its much greater extent at some former period. In the ridge at its head, connecting the Rothhorn and Weisshorn, three depressions were visible. One, the lowest,[3] is at the point marked on the Federal map 3751 mètres, or 12,307 feet, between the Weisshorn and Schallihorn, at the head of the arm of the glacier which comes down between these peaks, and is called on the map Glacier du Weisshorn. The glacier is separated from the true Moming Glacier by a spur from the Schallihorn, but the two unite at the base of that spur, or at least are only divided by a moraine, common to both. There was no doubt as to the practicability of this Col, the other side of which we had seen from the Dom.

On this side it was approached by a very long and steep slope of ice, with occasional patches of rock cropping out, but more or less step-cutting was evidently all that would be required to surmount it. We wished, however, to descend on to the main arm of the Schalliberg Glacier, which would not be feasible in this

THE MOMING GLACIER

direction, so we determined not to adopt it, except as a last resource. The two remaining gaps were between the Schallihorn and Rothhorn, one at the point marked 3867 mètres,[4] or 12,688 feet, the other very slightly to the south of it, and rather higher. Practically these two gaps are one and the same thing, the intervening distance being trifling, while both must be approached

by the same route. The upper part of the wall, between the Schallihorn and Rothhorn, beneath them, is formed by an exceedingly steep slope of snow or ice, intersected by a considerable bergschrund, and looked so straightforward, that we began to think the pass would, after all, turn out a humbug. It was not till we had advanced some distance that we realised the nature and extent of the difficulties which would have to be overcome before the base of the aforesaid slope could be reached, and, when we did so, our previous confidence vanished, and was replaced by serious doubts whether the pass was practicable at all. The upper portion of the Moming Glacier occupies an immense bay under the ridge which connects the Rothhorn with Lo Besso. In the centre, this sea of ice is raised above the lower glacier by a long and lofty ridge[5] of rocks, running approximately east and west. Between the western end of this supporting ridge and the peak of Lo Besso, the upper glacier finds its way in a very broad and shattered ice-fall to the lower level, but between the eastern extremity of the ridge and the rocks of the Schallihorn the space is very confined, and the glacier is forced through in a precipitous wall of ice-cliffs and séracs of the most forbidding character. This wall is of great height, and lies immediately under the snow-slope leading up to the two gaps, through one of which we wished to pass. To get, therefore, to the foot of the final slope, we must adopt one of four plans; either we must ascend the great ice-fall under Lo Besso, and pass along the whole length of the base of the ridge joining that peak to the Rothhorn, or we must find a way up the supporting ridge of rocks, whose presence was the cause of the difficulty, or attack the wall of séracs, or else find a way up the rocks of the Schallihorn on the right of it. The fatal objection to the first plan was, that, putting aside the difficulties of the way, which would be great, the détour required would be so enormous that a whole day would probably be spent in the effort to reach the Col. A careful survey of the supporting rocks revealed a broadish snow couloir,[6] by which we at first thought we might be able to circumvent the enemy, but examination through the glass showed it to be of such length and steepness, and so furrowed by stone channels, that its ascent would be practically impossible, without incurring

an unjustifiable amount of risk. The second plan was, therefore, disposed of, and the only alternatives left were the ascent of the séracs or of the rocks of the Schallihorn, and of the practicability of either route it was impossible to form any trustworthy opinion without nearer approach.

While engaged in reconnoitring, we wound steadily round the hill-side, but without seeing any sign of the expected chalets, although we were well above the end of the Moming Glacier. There could be little doubt that we were too low down, so we struck straight up to the left, and, after a stiff pull, fell into the path, which we had contrived to miss after leaving the lower chalets. This soon brought us in sight of the cows, which were scattered thickly over the pastures, which are the highest on the Arpitetta. We looked anxiously out for the chalets, but none were visible, until at 6.5 p.m. we stumbled upon a low hovel, built against the side of the hill, from which it was scarcely distinguishable. At the door stood a filthy native, from whom we elicited the horrible fact that we were looking at our quarters for the night, there being no other building on this part of the Alp. There was no alternative, so we entered what, externally and internally, was nothing but an exaggerated pig-sty, of a specially filthy character. To make matters worse, shortly after our arrival a violent shower of rain came on, accompanied by heavy thunder, and the weather assumed a threatening aspect, which was not calculated to elevate our spirits, rather depressed at the prospect of an uncomfortable night. After a long delay, we managed to get some milk, and then set about brewing some chocolate for supper. The result was satisfactory, and under other circumstances we should have been tolerably jolly, but the appearance of the weather became momentarily worse, and acted as a most efficient damper.

The height of our den was scarcely sufficient to allow of standing upright, while the floor was a sea of filth, into which we sank above our ankles. In one corner was a rough platform of stones, raised a few inches above the general level, covered with some sheepskins, apparently in an advanced state of decomposition, which was pointed out as our couch for the night.

After a long delay, a brew of chocolate was prepared, and we then retired. To take off boots was impossible, so rolling myself up in my plaid, I assumed my allotted place on the sheepskins, persuading myself, as really proved to be the case, that their appearance was the worst thing against them. Whymper, however, could not bring himself to trust to their tender mercies, and, I believe, sat all night on a stone, meditating on the immortality of the soul, and kindred topics. I had just settled myself, and was listening to the contest going on amongst the animals outside for the sheltered positions under the walls of the hut, and beginning to think myself not so badly off after all, when my complacency was disturbed by the receipt, exactly in my eye, of a heavy drop of rain—a convincing proof that, whatever might be the merits of the roof, watertightness was not one of them. Having, after several trials, taken up a more secure position, I was again dropping off, when there was a sudden irruption into the cabin of at least a dozen men, women, and children. Where they came from heaven knows, and I should be sorry to say where we wished them. Seating themselves with the previous occupants round the fire, they forthwith commenced an animated discussion, which lasted, with very slight intermission, throughout the night. What the seductive topic was we could not accurately discover, but, from the excited and prominent part taken in the conversation by the female portion of the community, I inferred that it was some local scandal of a peculiarly piquant and agreeable character. There was some consolation in the reflection that the women of the Val d'Anniviers are not superior to the weaknesses of their sex in *less* enlightened parts of the world, but the thought, soothing as it was, failed to act as an antidote to the incessant cackling, and I slept but little.

Monday, 18*th July*.—About 1.0 a.m. there was a movement amongst the guides to see what was the aspect of the weather, and, as I had expected from the ominous pattering on the roof of our refuge, the report was unfavourable; a thick fog enveloped everything in its clammy folds, and heavy rain was falling, so that it was obviously impossible to start. Whymper had throughout abjured the sheepskins, but I quickly composed

myself afresh, and was rewarded by a good, long sleep, which lasted unbroken till 4.30, when I finally awoke to the consciousness of a dull, miserable day. In spite of their unprepossessing appearance, I must do the sheepskins the justice to admit that they really made a not uncomfortable couch, and, so far as my experience goes, were not infested with fleas to the extent that might have been expected; some there were, undoubtedly, but nothing to seriously complain of. When I went to the door of our sty, the appearance of things was not encouraging; the rain had certainly ceased, and the fog in our immediate neighbourhood had lifted, the Col being clear, but the sky was encumbered with heavy masses of clouds, which concealed every high peak, and completely shut out the Zinal Glacier from view. It certainly was not a day on which to try a new and difficult pass, but the idea of vegetating twenty-four hours in the foul den in which we were, was too fearful to be seriously entertained, while I could not help feeling that, if we once went down to Zinal, it was a great chance whether we should toil up again for another miserable night, possibly to encounter a second disappointment in the morning. Still, I could not bring myself to contemplate the total abandonment of the expedition, which, like the Biesjoch, had been one on which I had specially set my heart, so we sat for some little time in a dubious and melancholy state, uncertain what to do. I was becoming more and more disconsolate, and inclined to pack up my traps and beat a retreat to England, when the fact dawned upon us that the weather was not getting any worse, and the guides seemed to think that we might at least make a start, as, even if ultimately compelled to return, we should have killed time, and most probably discovered the best line of march. So it was finally determined, and we forthwith set about breakfast. Some wine was heated, with which we warmed the cockles of our hearts, with the result, in my case, of seeing things from a less blue point of view. We paid the chief herdsman the very moderate sum which he demanded for our accommodation, and then started on our way at 5.40 a.m., amidst most encouraging assurances from all the people on the Alp, that we need not distress ourselves about the weather, as it was not possible to to get up at the point for which we were aiming.

It must be admitted that a party rarely started on a considerable expedition under less encouraging auspices, and I think that none of us entertained much confidence of success, as we walked in silence over the barren slopes that intervened between us and the ice. We had to pass below the end of the considerable glacier, flowing in a southerly direction from the base of the ridge which circles round from the Weisshorn to the point marked on the Federal map 3698 mètres, or 12,132 feet,[7] and forms the southern boundary of the western branch of the Turtman Glacier. I cannot help thinking that there must be a pass at some point over this ridge, which would afford a route of amazing grandeur from Gruben to the Arpitetta Alp, but, both now and during the remainder of the day, the weather prevented me from seeing more than the lower end of the glacier, which terminates in a broken, but not very steep, ice-fall, on the higher portion of the slopes we were traversing. The elevation of the châlet at which we had slept cannot be much under 8500 feet, so that we were spared the 'grind' usual before beginning the day's work, and, after an easy walk along the side of very gentle slopes of grass and stones, at 6.15 got on to the moraine of the Glacier du Weisshorn. We struck straight across this, leaving the route we ought to follow, if we wished to get at the Col between the Weisshorn and Schallihorn, on the left. This was subsequently adopted by Messrs. Hornby and Philpott, who crossed the pass with Almer and Christian Lauener, and christened it by the appropriate name of Schallijoch. The moraine was of enormous extent, but in due course we emerged on to a narrow strip of clear ice, which was rendered unusually slippery by the quantity of rain that had fallen, and was by no means agreeable walking in the almost nailless state of my boots. Making our way across this strip, which has a hard struggle for existence with the immense masses of débris which border and press upon it on either side, we were very soon encountered by the moraine which draws its supplies from the spur of the Schallihorn, forming the division between the Weisshorn and Moming Glaciers. This, though less extensive, is steeper than its neighbour on the other side, and, on cresting its summit, we found a considerable drop beyond, between us and the true

Moming Glacier. Scrambling down and disturbing the stones considerably in the operation, we were in a few minutes once more on clear ice, which, though equally level and uncrevassed, was less slippery than before, and, therefore, more pleasant to walk over. Keeping close under the moraine, we steered tolerably straight up the glacier towards the Schallihorn, until at 7.20 we came to a point, close to a dirty little tarn in the ice, where we halted to put on the rope, and decide upon the course which it would be best to follow.

We were now nearly opposite the eastern end of the ridge of rocks which supports the upper part of the glacier, and had to determine whether it would be better to attack the great wall of séracs between it and the Schallihorn, or endeavour to force a passage up the rocks of the latter peak, on the right side of the wall. Almer was in favour of the latter course, rightly supposing, from the immense mass of débris at the foot of the séracs, that the ice-cliffs were in the habit of coming down with a run. Indeed, I have rarely, if ever, seen a greater extent of avalanche débris; it stretched, in the usual fan-shaped form, from the foot of the wall down on to the level glacier, a broad slope which, at its termination, could not have had a width of less than half a mile. The whole of this space was completely covered with ice-blocks of various sizes, the apparently fresh condition of which showed that falls occurred daily, and might be expected at any moment. The danger was so very palpable, that I must confess to having been astonished when Croz objected to take to the rocks, and advocated a direct attack on the wall, on which he appeared to think there was a vulnerable point, close under the eastern end of the ridge before mentioned. The inconvenience of our guides being mutually ignorant of each other's language was here specially apparent, as, had they been able to communicate direct, I don't think that Croz would have proposed the line he did. As it was, I was the sole medium of discussion between the two, and, my knowledge of German being the reverse of extensive, I probably failed to understand the exact route by which Almer proposed to approach the rocks, and, consequently, to explain it to Croz with sufficient clearness. I pointed out to Almer the line of march which Croz wished to adopt, and, though evidently dis-

approving of it, he manifested his usual utter abnegation of self, did not insist on the superior merits of his own plan, and begged of us to do whatever Croz thought best. My own opinion, and I believe Whymper's also, was in favour of making for the rocks, whose principal difficulty seemed likely to be near the bottom where we should have to get on to them, but Croz adhered so strongly to his original choice, that we gave in, against our better judgments, and at 7.30 started, Croz leading, followed by Whymper, myself, and Almer.

We struck straight across the glacier, on which a good deal of snow was lying, and picked our way amongst the few crevasses by which the regularity of its generally level surface was occasionally broken, and approached a long slope of snow on its opposite side. The snow on this slope was rather soft, and the inclination considerable, so that zig-zags were required; but we mounted rapidly, and soon rose to a great height, gradually nearing the ice-cliffs which we were going to attack. But, at every step we rose, I became more convinced that we had made a great mistake in choosing such a line of march, and that sooner or later we should have to manœuvre to get on to the rocks. The wall above us was, in appearance, one of the most hopelessly impracticable places I ever saw, broken into cliffs and pinnacles of ice, many of which heeled over towards the slope below at any conceivable angle, and evidently could not long maintain their equilibrium. Almer kept up a subdued growling behind me expressive of dissatisfaction, but nothing was said, as it was better, for many reasons, that Croz should find out his mistake himself, a result which, judging from the irresolute manner in which he looked first to the right and then to the left, glancing occasionally round at us as if to see what we thought about it, could not long be delayed. No man likes to admit himself wrong, even if the error be merely an excusable one of judgment, still less to admit that a rival is right; but our leader at length stopped, and suggested that it might, after all, be wiser to take to the rocks of the Schallihorn. We readily concurred, but the operation, which at the proper time would have been simple enough, was now attended with an amount of danger so great, that, had it been *possible* to succeed

by persevering in our previous course, we should have done so, in preference to incurring it. We were very near the top of the long, fan-shaped slope of débris, whose foot we ought to have skirted, but along whose side we had mounted. It was now, therefore, between us and the Schallihorn, and, to get at the desired point on the rocks, we must cross it from one side to the other. But at its head rose an almost perpendicular wall of ice of considerable height, crowned by an enormous mass of broken séracs, in a most frightfully insecure position, which would clearly be the next contributors to the collection of débris. We knew that a similar formation extended upwards to the base of the final slope below the Col, and that the upper and invisible masses were as likely to pay a sudden visit to the depths below as those that were before our eyes. Beneath this delightful arrangement for the manufacture of avalanches at the shortest notice we *must* pass, and we could see only too plainly that the operation would be by no means a short one, and that we should be very fortunate if we got over without accident. However, the thing had to be done; so, abandoning our smooth slope of snow, we turned to the left and commenced the passage.

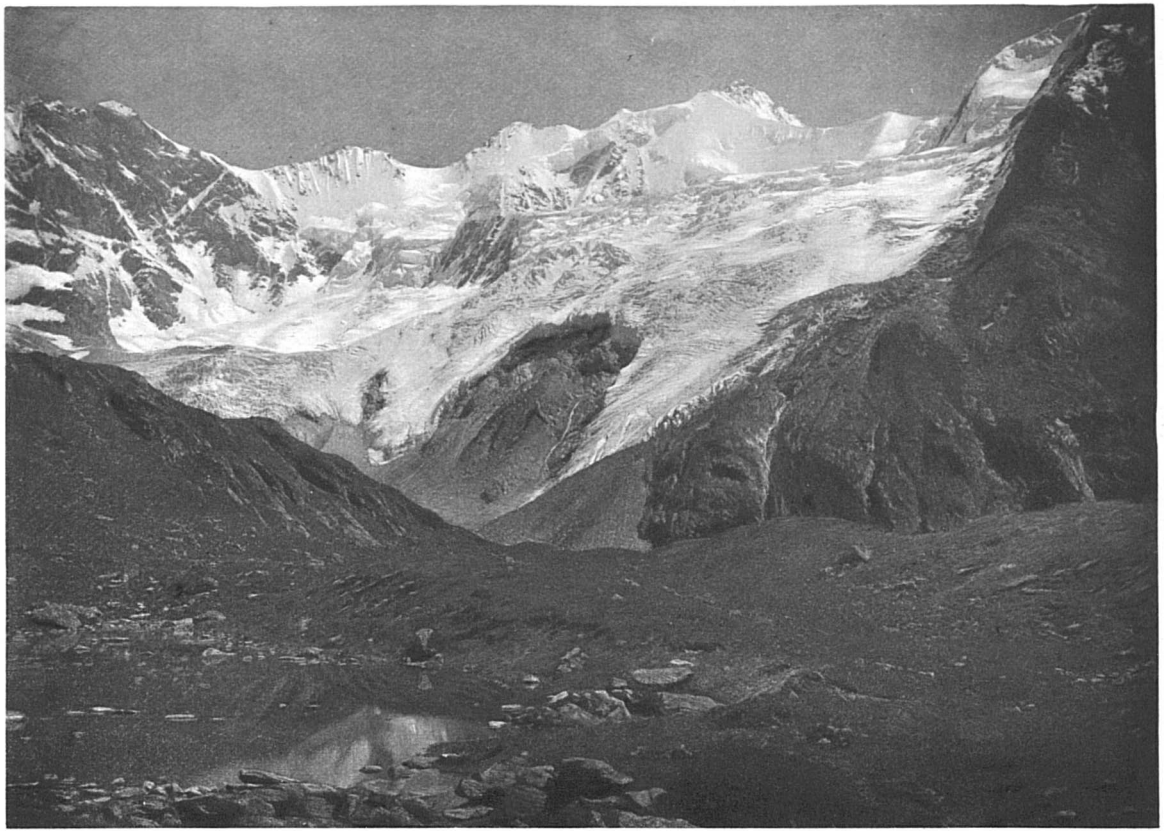
After our recent experience on the Bies Glacier, Almer and I, possibly, were more impressed with the nature and imminence of the danger than Whymper and Croz, but, great as had been our peril on that occasion, I believe that it was still greater now. Then, had the fall occurred while we were in the line of fire, I think that we might have had a chance, though a poor one, of escape from fatal injury, but on the present occasion nothing could have saved us, as we were so close under the cliffs, that, in the event of a fall, we must have been instantaneously crushed and swept away. Again, on the Bies Glacier the angle of the slope was not too great to allow of rapid movement, and we had the satisfaction of feeling that we *were* exerting ourselves to get out of danger; but here that consolation was denied to us, as the slope was inclined at an angle of at least 48°, and the blocks of ice were, in consequence, jammed together into a compact mass, in which nearly every step of the way had to be cut with the axe. At intervals, too, the surface

was scored by deep grooves, which had been scooped out by falling blocks of more than average dimensions. The passage of these channels was the most anxious and difficult part of the business, as in them the footing was specially precarious, the débris having been carried away, and smooth ice left exposed, while, in the event of a fresh fall occurring, the chances were, of course, in favour of the weightiest and most deadly missiles selecting the convenient routes marked out by their predecessors. One enormous tower of ice impended right over our path, apparently in the act of falling, and on this we kept our eyes fixed, speculating whether the inevitable catastrophe would or would not be delayed until we reached the rocks. I never in my life heard a positive oath come from Almer's mouth, but the language in which he kept up a running commentary, more to himself than to me, as we went along, was stronger than I should have given him credit for using. His prominent feeling seemed to be one of *indignation* that we should be in such a position, and self-reproach at being a party to the proceeding, while the emphatic way in which at intervals he exclaimed 'Schnell! schnell!!' oblivious that it was all Hebrew to Croz, sufficiently betokened his alarm. I am not ashamed to confess that, during the whole time, my heart was in my mouth, and I never felt relieved from such a load of care as when at 8.40, after, I suppose, a passage of about twenty minutes, we got on to the rocks and were in safety.

We immediately commenced the ascent of the cliffs which rose precipitously above our heads, but for how far we could not see, as they disappeared in the mist by which everything around was enshrouded. From the very beginning the work was hard, and we had to bring all our energies into play to overcome the difficulties that were encountered in rapid succession. The rocks were exceedingly steep and very smooth, being arranged in large slabs, which afforded by no means more hold than was agreeable. Some awkwardly long strides were necessary in places to get from one point of vantage to another, but there was one consolation to be derived from the formation of the crags, viz., that the rock was firm and good; there was, consequently, no danger from falling stones, and we could rely upon

every point that we grasped, however small it might be, holding securely and not giving under our weight. We worked for some little time along and up the side of the precipice which overhangs the ice-fall beneath which we had passed with so much danger, and the regularity of our way was occasionally interrupted by narrow snow couloirs, running across our path, down towards it. The passage of these gullies was, as a rule, the most critical part of the climb, as on either side the rocks were almost invariably covered with a thin coating of ice, in which it was almost impossible to cut a secure step. On these occasions, hands, feet, and eyelids were brought into play, but, in spite of every precaution, thanks to the state of my boots, I lost my footing in one specially bad step, and was fairly on my back, held up only by the rope. Fortunately the others held their ground, and Almer soon hauled me up to my former position; but without the rope, which some people profess to think should only be used on a crevassed névé, my fate would have been no doubtful one. I could not have recovered myself, and nothing could have saved me from instant destruction. Severe as the climbing undoubtedly was, it was not so difficult as it had been on the Biesjoch, and, in decent weather, the whole thing would have been most enjoyable; but that was denied us, the elements appearing determined to do their very best to baffle us, or at least render our progress as uncomfortable as possible.

As we rose higher, it became desirable to see something of what lay above us, in order that we might know how to steer, as we had no ambition to find ourselves by mistake on the top of the Schallihorn, but it was snowing hard, and the mist was thicker than ever; so, as it was not very cold, we halted at 9.35 on a convenient ledge, and determined to breakfast, in hopes that by the time we had finished there might be a partial clearance. As we sat we looked down upon the Moming Glacier at our feet, or rather upon the mist which concealed it from view, and which did not appear inclined to disperse. However, it all of a sudden became less dense, and disclosed immediately on our left an enormous pinnacle of ice, towering like an uplifted hand to an apparent height of several hundred feet above our heads. As this fantastic monster loomed



THE MOMING PASS.

mysteriously through the haze which concealed its base, and, doubtless, magnified its real proportions, it presented an appearance that was quite unearthly, and made a greater impression upon me than anything else of the kind I have ever seen. We had scarcely turned our eyes from this fascinating vision towards the glacier, which was now visible below, when we saw one of the immense masses of ice, underneath which we had crept in fear and trembling, lurch over,[8] totter for a moment, as if struggling against the resistless pressure which was urging it on, and then fall with a crash, straight down upon the slope we had traversed. I suppose that the height of the mass that fell must have been at least as great as that of the Monument near London Bridge, but the sight was not nearly so impressive as that of the falls we had seen on the Bies Glacier, in consequence of our greater distance from the scene of action. We were, however, able to judge of the resistless violence with which the avalanche swept downwards, and of the certain results to ourselves had the catastrophe taken place a little earlier, by its effect on the portion of the slope which it traversed in its course—every atom of the old débris was swept away, and a broad band of smooth ice left in its place.

The mist was now sufficiently thin for us to see our way in front, so at 10.10 we set off again, Almer and myself taking the places of Croz and Whymper as leaders. We were at the top of the first line of crags,[9] which were connected with a higher range by a steep slope of snow, which, a little higher up, narrowed to an arête, the slopes on either side falling rapidly. Right along the crest of this arête we went without difficulty, the snow being soft and the footing good. Towards the top it widened out again, and we should have liked to strike away to the right and cross the slope diagonally, so as to cut off a corner and get on to the snow plateau below the final ridge, at a point more immediately under the Col than would be possible if we preserved our present route. But the soft snow was lying on hard ice, and was in a most dangerous condition, so that we could not have traversed it without imminent risk of damaging its coherence and creating an

avalanche, which would carry us double quick down the ice-fall that we had with so much labour dodged. The attempt was, therefore, not made, and we, in due course, again took to the rocks, which were more than ever glazed with ice, and gave us an opportunity for some very pretty scrambling, but they were not long, and at 10.35 we left the last one behind us, and stood at the foot of the final ridge. We were on a narrow plateau, or rather shelf, of snow which lies at the base of the ice-slope running from the Schallihorn to the Rothhorn, sweeps round and under the latter peak and the ridge connecting it with Lo Besso, gradually widening in its course until it expands into an extensive bay of névé, that falls to the lower Moming Glacier under Lo Besso. We were a good deal to the north of both the gaps in the ridge above us, but resolved to steer for the most distant one, nearer to the Rothhorn, although it was higher than its neighbour. We came to this determination in consequence of the slope below the lower Col appearing to be very much steeper and more bare of snow than that leading to the other, so that, in spite of the superior height of the latter, less time would probably be consumed in reaching it. For the present, our way was delightfully easy, and we plodded along over the level corridor of snow, passing above the head of the ice-fall we had circumvented, looking out for a favourable point at which to pass the bergschrund, which, as was to be expected, ran along the base of the final slope. After passing underneath the lower gap, which is the point marked on the map, 3867 mètres, or 12,688 feet, we turned up to the 'schrund,' and crossed it, without much difficulty, at 11.15. The slope above was formidably steep, probably 50°, but would have been soon ascended had the snow been in good condition. But it was in the worst possible order, there being a hard upper crust which had to be kicked through to get footing, and underneath, nearly two feet of soft, powdery snow, without the slightest cohesion, in which, so soon as the foot was through the upper crust, we floundered about hopelessly. I found, at last, that the best plan was to go down on my hands and knees, with only the tips of my toes in the steps, resting upon the hard crust, which bore my weight securely; and so climbing, as if we

were going up a ladder, we mounted steadily behind Almer, until at 11.50 a.m. our efforts were crowned with success, and the Moming Pass was won.

The pass must be about 70 feet higher than the neighbouring depression, or 12,800 feet in height,[10] and the view from it in fine weather cannot be otherwise than superb, but I cannot speak from personal experience, as we saw absolutely nothing, mists enveloping everything, so that many interesting questions in connection with the Weisshorn and Rothhorn had to remain unsolved. The same fatality attended Mr. Hornby's party when they passed the Schallijoch, so that two of the grandest and most difficult passes in the Alps have been effected without their conquerors seeing anything of the scenery through which they lead. The next problem to be solved was the descent on to the Schalliberg Glacier; and, as there was no prospect of any serious improvement in the weather, we turned our minds to the solution of it, without a moment's delay. It was not easy to discover what lay between us and the glacier, for, at the point at which we had hit the ridge, an immense snow cornice impended over it, and it was impossible to venture far enough on to this to get a look down. However, advancing along the ridge towards the Rothhorn for a few yards, we found a point where the breadth of this overhanging fringe was not so great, and the guides, having cut away a portion of it,[11] disclosed a wall of snow, which, so far as we could judge through the fog, though exceedingly steep, was of no great height, that is to say, not more than a hundred feet. Anyhow, Croz led the way through the hole in the cornice, and we followed, Almer bringing up the rear. The descent was more formidable in appearance than reality, the snow being soft but good, and, floundering down, we were soon on the comparatively level surface beneath.

We had no very distinct notion as to what was the nature of the ground between us and the lower portion of the glacier, and the fog was too thick for us to see much. I had seen from the Dom that the central ice-fall was long and broken, but we must be still far above that, and neither Almer nor myself had any recollection of what was above it. For a short distance beyond the foot of the final slope, the snow stretched gently

downwards, and we pushed on quickly, bearing rather to the right, until the inclination became more rapid, and our progress was arrested by an enormous chasm. This was turned with some trouble, and proved to be the beginning of difficulties, as we forthwith found ourselves involved in one of the most formidable ice-falls I ever encountered, not a jumble of séracs, like the fall of the Glacier du Géant, but a great wall, broken into ice-cliffs, and intersected by 'schrunds' of the most forbidding character. It bore a strong resemblance to the descent below the Col de la Pilatte on to the glacier of the same name, but was very much steeper and altogether more difficult, which is saying a good deal. Most fortunate was it that we had as guides two of the first ice-men in the Alps, to whom ignorance of the ground was a matter of very trifling consequence, as, with incompetent or second-rate men, I doubt whether we ever should have extricated ourselves from such a labyrinth. As it was, Croz, who led, was in his element, and certainly selected his way with marvellous sagacity, while Almer had an equally honourable and, perhaps, more responsible post in the rear, which he kept with his usual steadiness. I should despair of giving, in words, any idea of the exciting and critical positions in which we were placed for more than an hour and a half, but one particular passage has impressed itself on my mind as one of the most nervous I ever made. We had to pass along a crest of ice, a mere knife-edge, with on our left a broad crevasse, whose bottom was lost in blue haze, and on our right, at an angle of 70°, or more, a slope falling to a similar gulf below. A person of suicidal turn of mind might thus have chosen between a 'tremendous header' on one side, and a roll, followed by a plunge, on the other. Croz, as he went along the edge, chipped small notches in the ice, in which we placed our feet, with the toes well turned out, doing all we knew to preserve our balance. While stepping from one of these precarious footholds to another, I staggered for a moment. I had not really lost my footing; but the agonised tone in which Almer, who was behind me, on seeing me waver, exclaimed, 'Schlüpfen Sie nicht, Herr!' gave us an even livelier impression than we already had of the insecurity of the position. On the side of the cliffs there was little or no snow, and nearly

every step had to be cut. To save time, the holes were not made by any means too large, and more than once, when we were cutting down towards small crevasses which had to be leaped, our gallant leader lost his footing, and shot over before he had intended, of course taking care not to perform such a manœuvre in places where there was serious risk. One huge chasm, whose upper edge was far above the lower one, could neither be leaped nor turned, and threatened to prove an insuperable barrier. But Croz showed himself equal to the emergency. Held up by the rest of the party, he cut a series of holes for the hands and feet down and along the almost perpendicular wall of ice, forming the upper side of the 'schrund.' Along this slippery staircase we crept, with our faces to the wall and a fringe of icicles over our heads, until a point was reached where the width of the chasm was not too great for us to drop across. Before we had done, we got quite accustomed to taking flying leaps over the 'schrunds,' though there was no jump on so grand and nervous a scale as that on the Col de la Pilatte, which remains without a parallel in my experience. To make a long story short; after a most desperate and exciting struggle, and as bad a piece of ice-work as it is possible to imagine, we emerged on to the true upper plateau of the glacier, close to a short, but lofty, wall of rocks, which were crowned by ice-cliffs, the neighbours of those with which we had been contending. We passed close to their base, utterly regardless of the avalanche débris which was scattered about in profusion, and, so soon as we were out of danger from this source, at 1.35 p.m. sat down in the snow to refresh and look about us.

It was again snowing fast, but the fog had lifted, so that we were able to see some distance ahead, and determine upon our further proceedings. I had always intended to get to Zermatt, if practicable, by crossing some point on the ridge which runs from the Rothhorn to the Mettelhorn, forming the right bank of the Schalliberg Glacier, and separating it from the basin of the Rothhorn and Trift Glaciers; but, at what point the passage could be effected, I had no idea, and to this ridge we, therefore, now turned our attention. Close under, and to the west of the Mettelhorn, whose summit was visible considerably

below our position, were several well-defined gaps, led up to by steepish snow slopes, which would evidently give access to the ravine of the Trift; but to get at the base of these slopes we should have to force a way through the central ice-fall of the glacier, the aspect of which, as seen below, was suggestive of considerable trouble and difficulty, while from the foot of the fall, the ascent to either of the gaps would be by no means short. It was, therefore, with no small satisfaction that we saw that, from the very spot where we were sitting, the névé ran up in a broad bay, almost due south, to a particularly well-marked depression in the ridge of the Rothhorn, which appeared to be intended as the natural exit from the upper part of the Schalliberg Glacier. The slopes leading up to this depression were so gentle, and its appearance generally was so irresistibly tempting, that with one consent we resolved to turn our steps in that direction, never doubting that we should find some sort of a descent on to the Rothhorn Glacier, and thence to the level of the Trift. For the first time during the day, the snow was accompanied by a bitterly cold wind, which chilled us to the bone, and made us all very glad to move, at 2.5, in the direction of the gap, which we hoped was to rescue us from our difficulties. The snow was in very good order, and nothing could have been easier than our progress, as we skirted the base of the magnificent precipices of the Rothhorn, which, in clear weather, must be one of the grandest features of the pass, judging only from the imperfect view which was vouchsafed to us. As we progressed, the slopes became slightly steeper, but there was not the least difficulty, and at 2.50 we stood on the crest of the ridge, when a view of the greatest magnificence burst upon us, and was the more effective from having been totally unexpected. Towards Zermatt the sky was perfectly clear, and there, free from a speck of cloud, stood the great range of peaks from Monte Rosa to the Matterhorn, with the long line of glaciers between them, while at our feet was the Trift Glacier, leading up to the Triftjoch, over which the fine peak of the Gabelhorn showed to great advantage.

The ridge on which we were standing was several yards in width, and covered with snow. We hurried across it, but the

snow curled suddenly over, and we were brought to a full stop on the brow of a precipice, falling sheer to the Rothhorn Glacier, from which we were thus completely cut off. This hitch was as alarming as it was unexpected; but Croz and Almer, after some discussion, started off in different directions to try and find a practicable descent, leaving Whymper and myself to ruminate on the highest rocks. We were, I believe, at a point just to the west of that to which a height of 3672 mètres, or 12,049 feet, is given on the Federal map, which I do not think is quite minutely accurate in its delineation of this ridge. Looking east along the ridge, our eyes at once fell upon a broad opening in it from which the Rothhorn Glacier fell away in easy slopes, and it was evident that, if we could only get at that opening, our escape was secured, but to pass along the south side of the ridge was impossible, and the arête between us and the desired point did not look promising. We ought from our position to have seen something of the Rothhorn, which must have been in the immediate proximity on our right, but it was still enveloped in clouds, so that the last chance of discovering a route to the summit was lost. After considerable delay, the guides returned and reported the descent of the rocks quite impracticable, so there was nothing for it but to retrace our steps, and endeavour to get at the other and more promising gap by skirting the slopes on the north side of the ridge above the Schalliberg Glacier. Accordingly, at 3.30 we turned, and, after descending in our steps for a short distance, struck up to the right, and commenced working round the steep slopes of snow which masked this side of the ridge. There was no difficulty beyond what arose from the steepness of the slope, which, further on, appeared to increase so considerably that it was doubtful whether we should be able to pass; so the two men cast off the rope, and went up the slope to see what sort of going the arête would offer, leaving us to shiver, a violent squall of wind and snow having chosen this inopportune moment to vent its fury. Fortunately it was not long, and as it passed away, we got our first and only view of the Weisshorn, which showed its precipitous crags above the northern and smaller arm of the Schalliberg Glacier, perfectly white with snow. Almer soon returned, and announced 'All well;' so we went up in his steps,

and got on to the arête, which, although very narrow, was easy enough to traverse, and led us, at 4.15, after a considerable descent, to the wished-for gap, where Croz was waiting our arrival.

It is probable that at some former period the Rothhorn and Trift Glaciers formed one and the same sea of ice, but the Rothhorn Glacier has now shrunk considerably, and terminates on the brow of steep cliffs at a great height above its far more extensive neighbour. The only point we were now in doubt about was, whereabouts we should be likely to find these cliffs most accessible; and, all being in an equally blissful state of ignorance on the subject, we trusted to luck, and struck well away to the left from the Col, descending very gradually. The glacier proved even easier than we had expected, with very few crevasses, and those generally covered with snow, so that we ran, trotted, and finally glissaded along at a great pace until at 4.50 we got off the ice on the extreme left, just above a stony ravine, which we hoped would give us access to the grass slopes below. I have omitted to mention that, while on the arête above the Rothhorn Glacier, on looking back at our pass, we made a rather important discovery, viz., that, by keeping well to the left from the foot of the first steep snow-slope, we should have avoided almost all the difficulties that we had encountered in descending to the upper plateau of the Schalliberg Glacier, as in that direction there appeared to be a tolerably connected slope of névé, by which we could have evaded the ice-fall.* At the point where we quitted the ice, there was a small stream of clear water which could not be passed without a halt, so down we sat, and, as we drank, reflected with considerable complacency on what we had accomplished. We had made what, though by no means the shortest, is beyond question the most direct pass that can *possibly be made* between Zinal and Zermatt, seeing that a straight line drawn on the map from one place to the other traverses the two

* Mr. and Miss Walker, who crossed the pass with Melchior Anderegg in 1865, found no difficulty in descending to the upper plateau of the Schalliberg Glacier. From it, instead of following my route, they kept down the glacier until below the lower ice-fall, when they struck up to the right, and passed through one of the depressions under the Mettelhorn, spoken of at page 300. They were of opinion, however, that my route was the best.[12]

ridges respectively connecting the Schallihorn and Rothhorn, and the Rothhorn and Mettelhorn, at the exact points to *a hair's breadth*, at which we effected the passages. On the other hand, however, Croz told Whymper that he considered the pass the most dangerous he had ever crossed, and there can be no doubt that it is far more difficult than the Triftjoch or the Col de la Dent Blanche.[13]

At 5.5 we terminated our debauch, and continued the descent down the ravine, which was steep and very rough, considerable care being required to avoid knocking the stones down upon the heads and legs of those members of the party who were in front. But there was no difficulty, and we soon reached the rough grass slopes which extended downwards towards the foot of the Trift Glacier. These were very nearly level, and the walking over them was pleasant enough, until at 5.40, after bearing well to the right, we were close to, but a very little below, the termination of the glacier. We now turned to the left, into the gorge of the Triftbach, and, thenceforward, followed the usual route from the Triftjoch, keeping, however, along the slopes on the left bank of the torrent, instead of taking to the old and now rarely used way along the right bank, where there is at least one *mauvais pas*. I cannot conscientiously say that our path was a pleasant one, but bad as it was, when we eventually lost it, as, of course, we did, we wished for it back again. The ravine through which the torrent flows is a mere cleft in the rocks, and at the beginning of a day would be considered curious, but the thought of Zermatt absorbed us, to the exclusion of all other topics. Fortunately, we stumbled upon the track again, on the brink of the final descent into the valley, which is very steep, and to a luckless individual with boots worn perfectly smooth, as mine were, most disagreeable. Still, all things must come to an end, and at 7.20 p.m. we walked into the Monte Rosa Hotel at Zermatt, just in time to escape a violent storm of rain. The passage from the Arpitetta Alp had occupied exactly twelve hours' actual walking, but, of these, one hour at least had from various causes been wasted.

I found a letter from Winkworth to the effect that he had been taken ill, and obliged to return to England, an event which

involved the total overthrow of all my plans, as I could not, single-handed, accomplish the expeditions which we had proposed doing together. I went to bed quite uncertain what to do, but thought the matter over before I fell asleep, and finally determined to go on the morrow to the Bell Alp above Brieg, ascend the Aletschhorn from there, and cross to the Lötschen Thal by a pass which was understood to exist over the Jägi and Distel Glaciers, and thence try to get by the Wetterlücke to Lauterbrunnen and Grindelwald, at which latter place I had little doubt but that I should stumble upon some one who would join me in a few expeditions wherewith to wind up my campaign.

NOTES TO CHAPTER XII

[1] The ascent by B. Epinay and J. Vianin, mentioned by Moore, was made in 1862. For many years past the peak has been climbed frequently every season, and has come to be considered among the more interesting of the minor climbs starting from Zinal.

[2] See note 4 to chapter x., and the description of Plate XIII. and of the headings to chapters xii. and xiii.

[3] This pass is the *Schallijoch*, first crossed by Messrs. Hornby and Philpott about three weeks after Moore's crossing of the *Moming*. (See *Alpine Journal*, vol. i. p. 432.)

[4] The old map, from which Moore's sketch map was copied, is misleading here. The height of 3867 metres belongs to the little point known as the Moming Spitze. The Moming Pass crossed by Moore lies to the south of this point, and its height is 3793 metres (12,445 feet). The Col to the north of the Moming Spitze is now marked as the *Ober-Schallijoch*, and its height is 3745 metres (12,287 feet). Moore's pass is therefore the highest as well as the most southerly of the three Cols which he mentions.

[5] In connection with this part of the chapter, see description of Plate XIII.

[6] The snow couloir mentioned is very visible in the photograph as a white line intersecting the whole rock face from top to bottom.

[7] The point in question is the summit of the Crête de Millon, of which the Pointe d'Arpitetta (10,302 feet) crosses the western lower end. The glacier is the Glacier du Weisshorn, the dimensions of which are very much more considerable than are indicated on Moore's sketch map.

[8] Whymper has a very striking and beautiful sketch of the fall of this column in *Scrambles*, p. 258.

[9] The two sets of rocks, with the snow arête dividing them, are very clearly seen in Plate XIII., immediately to the left of the ice-fall, and looking as if directly under the *Ober-Schallijoch*.

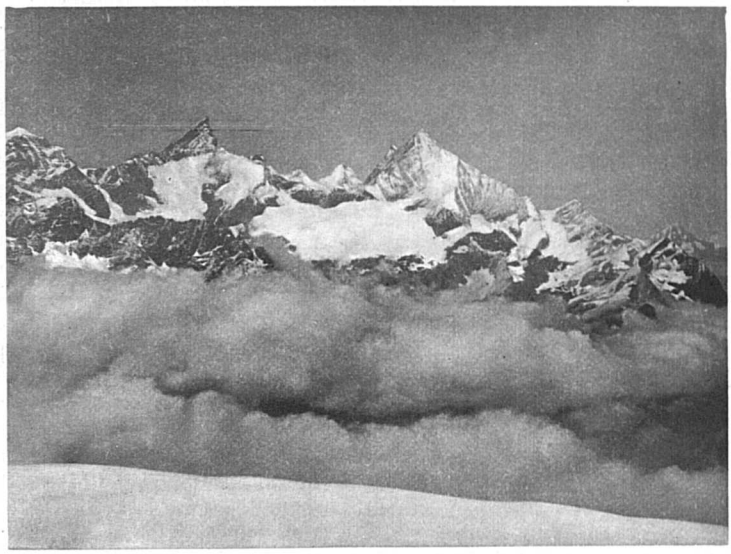
[10] As to the actual height of the pass (12,445 feet), see note ([4]) above.

[11] This also is the subject of a well-known picture in Whymper's *Scrambles*, p. 259.

[12] The following is a copy of a note made in the Zinal Hotel Book by a well-known Swiss climber as to another route for the descent :—

'1872, 19 *Juillet*.'—E. Javelle, C.A.S., parti avec Jean Martin et Elie Peter pour coucher à l'alpe de Leisse. Le lendemain nous avons franchi le Moming pass et nous avons opéré notre descente par les précipices du Schallhorn et l'extrémité du Glacier du Schallenberg sur Randa. Cette route est des *plus dangereuses*, pendant près de trois heures on y est exposé, dans des couloirs souvent excessivement raides, aux avalanches de neige ou de pierres, et dans la plupart sans espoir du moindre abri ; en outre il s'y rencontre un ou deux pas assez difficiles. Il serait inutile de chercher à descendre plus à droite ; on n'arrive partout qu'à des séracs de 200 ou 300 pieds suspendus au dessus de précipices abrupts. La descente la plus sûre *doit* se faire par la partie supérieure du Glacier de Hohlicht, le Rothhorn-Gletscher et le Trift-Gletscher sur Zermatt. D'ailleurs il ne doit guère y avoir dans les Alpes de passage plus magnifique ; le Grand Plateau et les séracs du Glacier de Moming surpassent, de l'avis de plusieurs, ce que l'on peut voir dans ce genre au Mont Blanc et au Col du Géant.'

[13] The name of Col de la Dent Blanche is now given to the pass between the Dent Blanche and the Grand Cornier, from Ferpècle to the Mountet or Zinal. Moore refers no doubt to the Col Durand, east of the Dent Blanche and Pointe de Zinal, which (like the Trift-joch) forms a well-known route between Zinal and Zermatt. The Col Durand is no doubt longer than the Trift, as a route between the two points mentioned, but no one who has crossed the latter can deny that its evil reputation for falling stones is well deserved, while the Durand is perfectly safe. Neither pass, however, has any of the serious difficulties of the Moming, which also is a thousand feet higher than either of them. Moore crossed the Col Durand from Zinal to Zermatt in July 1871. From the Col he seems to have been much struck with the view of the Tiefenmatten Joch, then uncrossed, and made the first passage of it (which is described in chapter xvii. below) a few days later.



CHAPTER XIII

THE ALETSCHHORN

Tuesday, 19th July.—I got up at 6.30 a.m., as I had a good many packing and other arrangements to make, and we had quite as much before us as could be conveniently accomplished during the day. All my traps were sent off to Grindelwald, and at 8.5 a.m., after saying good-bye to Whymper, Almer and I started for Visp, accompanied by Jean Baptiste Croz, and another Chamouni man, who were also going down the valley, *en route* home. We reached Randa at 9.45, and halted till 10.0,—came to St. Nicholas at 11.45, where five minutes were spent in conversation with Reilly, who was on his way to join Whymper at Zermatt,—passed through Stalden at 1.35, and arrived at the Hotel de la Poste, at Visp, at 2.50 p.m., rather footsore, in less than six and a half hours' actual walking from Zermatt. I had insisted upon travelling fast, as I knew that a long delay for dinner at Visp was unavoidable, nor was I deceived, for it was 4.30 before we started again, in a one-horse char, which, after a pleasant drive, dropped us at 5.25 p.m. at Näters, a large village

on the right bank of the Rhone, slightly above Brieg. We had now an ascent of more than 5200 feet before us in order to reach our destination for the night, the Aletschbord Inn on the Lusgen Alp, or, as it is more generally called, Belalp, though most improperly, as the latter name is given on the map to a position a good deal lower down. The idea was not very fascinating, but Almer started off instantly at a tremendous pace, his energies, somewhat damped by the quick walk down from Zermatt, having been completely restored at Visp, where he had encountered a Bernese friend, who had stood him some champagne, a liquor to which, though no toper, he is naturally partial. The path, which mounts very steeply from Näters into a lateral valley between the Gredetsch Thal at the base of the Gross Nesthorn, and the gorge of the Massa, down which pours the drainage from the Aletsch Glacier, is very stony but well made, and leads for some distance through luxuriant groves of cherry and other trees. Nothing could well exceed the picturesqueness of the scenery as we advanced; right and left towered splintered crags, broken by an extraordinary number of ravines, and thickly overgrown with pine-trees, presenting so charming an *ensemble*, that I forgot my fatigue in admiration. We left, on our right, one specially curious gorge, called on the map Tiefethal, which I should have much liked to see nearer at hand. It appeared to be a cleft not many yards wide, with absolutely perpendicular walls of rock, rising on either side to a height of many hundred feet. After crossing to the left bank of the torrent, we came at 6.50 to the hamlet of Blatten, through which we were passing, when a voice hailed us to know if we wanted a guide to the Aletschhorn. Now, as we did require such a commodity, we stopped and entered into negotiations with the owner of the voice, who proved to be a tall, decent-looking man, by name Anton Eggel, who had been one of the guides upon each of the two occasions that the Aletschhorn had been ascended from this side. I finally engaged him to go with us as far as Lauterbrunnen, and he went off to make his arrangements. These took some time, and it was not till 7.20 that we were on the move again, when my opinion of our new recruit was not increased on seeing that he was armed only with a very frail-looking alpenstock. We went up at a

most tremendous pace, along a delightful path through woods and over pastures, but it soon became too dark for us to see much, and also began to rain violently, the only effect of which was to make us quicken our already rapid pace. Under Eggel's guidance we left the path, and took a short cut over very steep ground, without incident, until, on cresting a rise in the hill, we suddenly looked down upon the sinuous form of the Aletsch Glacier, which, seen under the light of a watery full moon, struggling in vain to pierce the clouds, had a most startling and sepulchral appearance. We reached the inn at 8.35 p.m., in two hours-and-three-quarters' cruelly fast walking from Näters, and glad enough we were to find ourselves under the shelter of its hospitable roof, being pretty nearly wet through. The weather did not promise well for the Aletschhorn in the morning, and I went to bed without much fear of being aroused at an unearthly hour of the night.

Wednesday, 20th July.—Heavy rain and thick fog had it all their own way at the hour we ought to have started, nor, when I got up at 8.30, were matters much better, but, as the morning wore on, the clouds vanished, and the day tnrned out gloriously fine. Almer had found a cobbler, to whom he had given my boots to patch up, but enforced idleness in such a position as that of this most charming inn was not a matter of regret. The situation of the Eggischhorn Hotel is not comparable to that of the Aletschbord, but the latter is not well placed for the ascent of most of the great Bernese peaks, so that there can be little or no rivalry between the two, and each must be visited on its own account. As I lay on the grass slopes, in a state of bliss, I looked straight up the Aletsch Glacier for many miles. Beyond the upper Valais was range upon range of unknown peaks and glaciers, while, looking south, the enormous mass of the Fletschhörner, the noble chain of the Mischabel, the obelisk of the Matterhorn, and the Weisshorn, the most beautiful summit in the Alps, presented an array on which the eye never wearied of feasting. In the same direction, at our feet, the roofs at Brieg sparkled in the sunshine, and reminded us of the dust and heat from which we in our eyrie were free. The evening was one of the finest I ever

remember in the Alps, and the sunset on the Dom and Weisshorn, a thing to be dreamed of, so unearthly beautiful was it, so that, altogether, we went to bed under most favourable auspices for the morrow.

Thursday, 21*st July*.—After a day of idleness, I was not very tired, and the moonbeams which streamed into my room, rendering it as light as day, effectually prevented me from falling asleep for some time. When I did at length drop off, my slumbers were not very sound, so that, on the whole, I was sincerely glad when Almer called me at 12.30 a.m. He had slept as little as myself, and we both regretted that we had not started several hours earlier, so as to have been very near the top of the mountain by sunrise. However, that most brilliant idea not having occurred to us till it was too late to carry it into effect, we hurried over breakfast, and at 1.40 started on our way.

Our design was not only to make the ascent of the Aletschhorn, but to combine with it the passage to the Lötschen Thal over the Jägi Glacier and Beich Grat, between the Kippel Breithorn and the Schienhorn, a tour which we had little doubt of being able to accomplish, as, from the account in the visitors' book by Mr. Tuckett, who had crossed the pass for the first time, the reverse way, about a week before, the time required for the latter appeared to be comparatively short. On going out into the open air, the view that greeted us of the superb masses of the Saas Grat and Fletschhörner, seen under the light of a moon of most dazzling brilliancy, was beyond expression lovely, while the broad stream of the Aletsch Glacier, in our immediate proximity, stretching upwards as far as the Märjelen See, a river of ice, rippled only here and there by a few crevasses, was even more fascinating in appearance. Turning our steps in the direction of this latter we followed a good, but rough, path, along the lower slopes of the Lusgengrat above the glacier, which took us rapidly down until we were nearly on a level with the ice. We were walking with our backs to the moon, and the long shadows, which we constantly cast in front us, bothered us considerably, and in one or two places, where the path had been carried away by avalanches, and not yet

repaired, nearly threw us on our noses. The Ober Aletsch Glacier, into whose upper regions we were about to penetrate, falls towards the Great Aletsch, slightly above the Lusgen Alp, in a steep, but very narrow, ice-fall, whose insignificant appearance by no means prepares the traveller for the great extent of snow-fields which it drains. The ice-fall itself is probably not impracticable, but the ascent would be long, laborious, and uninteresting, and is fortunately unnecessary, as the lower slopes of the Sparrenhorn, on its right bank, afforded an easy route by which to flank the enemy. Up these slopes we turned in due course, and mounting rapidly, were soon on a smooth stretch of avalanche snow between the rocks on the left, and the moraine of the glacier on the right, over which we tramped in luxurious ease, until it died away, and the moraine itself had to be taken to. It was just 3.20, and the day was beginning to break over the distant mountains at the head of the Binnen Thal, and in the neighbourhood of the Gries Glacier; the colour of the sky in that direction was something perfectly wonderful, and the gradation of tints such as no pen could describe, nor pencil reproduce. We followed the moraine for a short distance, until the glacier on our right seemed to promise a more agreeable road, when Almer and I proposed getting on to it. We here had a first specimen of the quality of our friend Eggel, who objected to our proposal on the ground that the ice was crevassed, but, as we had the evidence of our eyes to the contrary, we disregarded his protest, and scrambled down on to the glacier, which was as level and easy to traverse as the Unteraar Glacier below the Abschwung. Pushing on rapidly over the smooth ice, at 4.0 a.m. we were abreast of a broad opening in the left bank of the glacier, through which a second stream of at least equal width to that which we had been traversing, was seen stretching upwards to the base of a noble peak, which rose symmetrically from its head in a wall of crags, tapering away to a point.[1]

The peak was the object of our ambition, the Aletschhorn itself, the second summit in the Oberland, and the glacier was the northern branch of the Jägi Glacier, that name being also applied on the map to the still more extensive ice-field, which

rose gradually westward from our stand-point to the low ridge of the Beichgrat, between the Kippel Breithorn and the Schienhorn. This latter is the natural source of the Ober

THE ALETSCHHORN

Aletsch Glacier, that name, for some inconceivable reason, being only given on the map to the comparatively short length of ice between the junction of the two arms above-mentioned and the main stream of the Great Aletsch. To

avoid confusion, I shall hereafter speak of the glacier following from the Beichgrat in its entire length, as the Beich Firn, applying the name Ober Aletsch to that which comes down from the Aletschhorn, and is as distinct from its neighbour as the Lauteraar is from the Finsteraar, or the Talèfre from the Glacier du Géant. The stupidity, originally displayed by the Swiss engineers in their nomenclature of the Oberland peaks and glaciers, is conspicuous in this part of the district, where there are no less than four Jägi Glaciers in close proximity to each other, though perfectly distinct, and two Breithorns face to face on opposite sides of the Lötschen Thal.* The Aletschhorn, of course, absorbed the largest share of our regards, but on our left, at the head of a small steep, lateral, glacier, rose an almost equally beautiful, though less elevated summit, the Gross Nesthorn, a bold, rocky peak, 12,534 feet in height, whose southern face looks down upon the Gredetsch Thal, a small valley, which drains into the Rhone between Visp and Brieg. We turned sharp to the right, towards the point of junction of the Ober Aletsch Glacier with the Beich Firn, and at 4.10 came to a big stone, near the right bank of the former, which was selected as a suitable spot whereon to deposit our traps, to await our return from the attack on the peak which was looking down upon us so defiantly.

From where we first caught sight of the mountain, its appearance was suggestive of considerable difficulties, but, from our friendly stone, we saw that, right and left from the actual summit, arêtes fell to well-marked depressions in the ridge at the head of the glacier, which were led up to by slopes of névé, steep, but evidently practicable, so that serious difficulty was only to be anticipated, if at all, between them and the summit. So far as inaccessibility goes, the peak is, therefore, a gigantic impostor, and at 4.20 we started to express personally to the

* Since this was written, the nomenclature of this and other parts of the Bernese chain, depicted in Sheet 18 of the Carte Dufour, has been revised by the Swiss authorities. The name 'Jägi' is now no longer applied to either of the two glaciers here described. The name 'Ober Aletsch' has been extended to the ice-field under the Aletschhorn, while to the still more extensive reservoir below the Birch (or Beich) Grat, the appellation Beich Firn has been given. The two Breithorns still remain.

THE ALETSCHHORN.

offender our opinion on the subject. The *cirque* of névé at the head of the Ober Aletsch Glacier is divided into two bays, of nearly equal dimensions, by a spur which runs straight down from the face of the Aletschhorn. On either side the névé is steep, and falls towards the level glacier below in a rather dislocated condition. The western bay, however, runs up to a very well-marked depression, just under the Aletschhorn, in the ridge, which circles round from that peak to the Schienhorn,—a depression which could be reached without the slightest difficulty, and must be close to the Col of the Lötschenlücke, which it cannot much exceed in height. This would, probably, afford an interesting route from the Belalp to the Eggischhorn (or Faulberg), or *vice versâ*, for persons wishing to see a little of the glaciers in the neighbourhood of both those stations without ascending any of the higher peaks. The eastern bay is steeper and more crevassed than its neighbour, and is shut in at its head by the line of cliffs running from the Aletschhorn to the Fusshörner, but at one spot these cliffs are masked by a broad couloir, or slope of snow, leading up to the crest of the ridge, close to a prominent point projecting from it, and to reach this point was now our object. We pushed rapidly up the glacier, striking diagonally across from the right towards the left bank, and crossing in the operation the considerable moraine which draws its supplies from the spur mentioned above. The snow could not have been in better order, and we were soon near the head of the glacier, which, up to the foot of the ice-fall, is as level as a billiard table. The direct course would have been to keep straight on in the direction of the peak, but the slopes were too steep and broken to render this advisable, even if it were possible, and in lieu thereof, after passing the last spur of the Fusshörner, we turned up to the right, where slopes of snow promised to lead us by a considerable détour to a point above the final plunge. The hardness of the snow was here rather a nuisance, as the inclination was sufficiently great to make the walking difficult without step-cutting, an expenditure of time and labour we were loth to incur. So we struggled on as best we could, occasionally losing our footing, but always managing to avoid a roll down the

ground we had already passed, a manœuvre, the most serious result of which would have been the time lost in a second ascent. The labour, however, was severe, and it was a welcome relief when, after winding about amongst a few crevasses, we came to a more level stretch of snow, in the middle of which, close under the crags, was a small patch of moraine, whose appearance was irresistibly suggestive of breakfast. It was 5.20, so that that meal was certainly due, and we, therefore, established ourselves in comfortable attitudes to pay our *devoirs* to the solids. Nature refreshed, the rope was for the first time put on, and at 5.50 we resumed our exertions.

From our halting-place, the Dom and Matterhorn had been the only distant peaks visible, but now, as we gradually progressed up the steep snow-slopes, the form of the Weisshorn came into view over the elevated ridge which runs east from the Gross Nesthorn.[2] Seen from any point, this glorious mountain has, for grace of outline, no rival in the Alps, but, accustomed as I was to the sight of it from all quarters, I was quite unprepared for the ravishing beauty of its appearance as witnessed from these slopes above the Ober Aletsch Glacier. I can call to mind no object which has left on me such an impression of perfect loveliness, the effect being intensified by some peculiar condition of the atmosphere, imparting a mellow tint to the distant snows, and softening the outlines, so that the mountain had an unsubstantial aspect, and scarcely seemed to belong to earth. Every succeeding step in the ascent was now productive of a fresh enjoyment, as peak after peak of the great Pennine chain opened out, until every summit, from the Dom to Mont Blanc, stood out clear in the southern sky. This gradual unfolding of the panorama must be lost by those who make the ascent by the ordinary route of the Mittel Aletsch Glacier, which is one amongst many reasons why the Belalp should be preferred to the Eggischhorn as the starting point for the expedition. For some time we kept close under the crags on our right, which are very precipitous, making long zig-zags up the slopes, the snow on which was generally in good condition, but let us through into the soft substratum once or twice. But at last we bore well away to the left, towards the centre of the

glacier, the most broken part of which we had left below us, and commenced winding about amongst the few huge crevasses which intersected the slopes that intervened between us and a sort of plateau at the foot of the broad couloir leading up to the crest of the ridge. The first of these crevasses was almost worthy to be called a bergschrund, so steep was the slope above it, and Almer's first effort to get across was a failure, as the bridge gave way with him, whereat Eggel looked rather uncomfortable, and muttered something about *acht zu nehmen*, which seemed to indicate that he had had little experience of the virtues of a rope on such a place. Of course, the obstacle was soon surmounted, but a good deal of winding about was necessary before we stood at the base of the final slope, close to the right of a patch of rocks running down from the ridge in front, by which the ascent might also be made when the slope happens to be in bad order. The angle of this was, I should think, about 40°, and some avalanche débris on the lower portion of it appeared to hint that, late in the day, some of the snow above was in the habit of coming down with a run, but at this early hour of the morning there was no fear of such a catastrophe, and Almer, accordingly, started a-head, kicking the steps at a great pace. We had all along travelled fast, but Almer now surpassed himself, and worked away with such energy and rapidity, that Eggel could not repress his astonishment at his apparent insensibility to fatigue. The slope was generally snow, but occasional patches of ice cropped out here and there, requiring footsteps of the coal-scuttle order, but these were, fortunately, few and far between, and, although the distance was greater than it had appeared from below, we got on to the ridge at 7.30, just to the end of the small projecting tooth of rock which is visible from the Eggischhorn, as the first point on the arête to the south-west of the summit.

As we emerged on to this ridge,[3] an exclamation of astonishment burst from us at the magnificence of the prospect which was suddenly unrolled before our eyes. An instant before, our view had been limited to the wall up which we were toiling, but now we looked across the whole extent of the vast waste of snow and ice, from which rise the giants of the Oberland. Ten

minutes were spent in looking about us, but we deferred careful examination of the glorious objects around us until we should be on the summit, which was now in full view to our left, but separated from us by a long arête, up which we started at 7.40. This arête is neither very steep nor very difficult; indeed, Eggel declared that, in the two previous ascents (by Germans), the passage had only occupied three-quarters of an hour, and had been effected without even using the rope, the rocks being particularly good, but upon the present occasion the rocks were in many places covered with snow, and one or two steps were, in consequence, rendered undeniably awkward. The arête is exceedingly narrow, but, so long as it was possible to keep right along the top, we got on well enough. Teeth, however, projecting from the ridge, made this sometimes impracticable, and then we were obliged to pass below them, along the exceedingly steep slopes of rock, masked by rather soft snow, above the Ober Aletsch Glacier. I must confess to not having liked some of these détours at all. Not that there was any difficulty in the operation, but the snow seemed to me to be by no means in a safe condition, and very likely to give way under our weight, in which case we should have landed on the glacier below—rapidly, it is true, but, I am afraid, in a general state of smash, that would have debarred us from ever boasting of the speed with which we had effected the movement. It was impossible to avoid the danger by keeping below the other side of the ridge as, on that side, the cliffs fell to the Mittel Aletsch Gletscher in a sheer precipice, so smooth, that a cat could not have found footing on it. Altogether, this part of the route gave us some very pretty scrambling, and (from a climbing point of view), relieved the ascent from the dulness and monotony which had previously characterised it. The length of the arête was greater than I had expected, and the summit was seldom visible until we were close to it, one point after another, as usual, presenting itself as the genuine article; but these impostors were at last left behind, and at 8.50 a.m. we stood upon the true summit of the Aletschhorn, 13,803 feet in height.[4]

The summit is (or was upon this occasion) a snowy ridge

some half-dozen yards in length, of which the end furthest from the point first reached is the highest, and on this was planted an alpenstock, left by some former visitor, of which I forthwith cut off the end as a memento, in the absence of any available pieces of rock. It would have been scarcely possible to have had more favourable conditions for enjoying the wonderful view that was extended around us, as, although over the plain of Switzerland there were some clouds, yet, in every other direction, from the mountains of the Engadine to and beyond Mont Blanc, the sky was perfectly clear. I suppose there is no other summit in the Alps so well placed for a view of the great Pennine chain as the Aletschhorn, its position being extremely central, and the intervening distance not too great for easy identification and careful examination of the long line of peaks and glaciers. The Weisshorn, Dom, Fletschhörner, Matterhorn, Dent Blanche, Grand Combin, and Mont Blanc, of course, towered supreme above their neighbours, but we picked out many old friends amongst the common throng, associated with pleasant memories, and amongst these Almer did not fail to point out, with his usual rhapsody, the point of the Steinbock and the great swelling snow-fields of the Moiry Glacier. So, also, did we retrace a large portion of our way down from the Biesjoch and up to the Moming Pass, Eggel being favoured by Almer with some reminiscences of those memorable expeditions, which made his hair almost stand on end with astonishment. The peaks of the Oberland itself were, after all, the most attractive in my eyes, and of these, the Bietschhorn and Gross Nesthorn, close at hand, though by no means the most elevated, were certainly among the grandest, the former especially, towering abruptly from the ridge above the Lötschen Thal in a wonderful way.[5] Scarcely less striking were the two subordinate groups of the Balmhorn, Altels, and Rinderhorn, and the Blümlisalp and Doldenhorn, separated from each other by the broad snow trough of the Tschingel Glacier. The Balmhorn was particularly fine, and presented his precipitous face to us, overhanging the Lötschen Pass and Gastern Thal. I had once thought of attempting the ascent of this peak, which is a few feet higher than the Blümlisalp,

and we now again discussed which would probably be the best line of attack, in happy ignorance that the problem no longer remained to be solved, and that the Walkers, at that very moment, were calmly studying the panorama from the hitherto virgin summit.[6] At last, turning round towards the north, we had before us all our old friends, the sharp pinnacle of the Jungfrau, looking scarcely lower than our own position, connected by the low ridge of the Jungfraujoch with the rounded, but noble, form of the Mönch, which may almost be looked upon as Almer's peculiar property, he having assisted on every ascent yet made. Then came the black crags of the Eiger, the huge mass of the Schreckhorn, and, over its shoulder, the sharp pyramid of the Wetterhorn, then the long ridge of the Vieschergrat, leading up to our old conquest, the Gross Viescherhorn, and, lastly, the monarch of the district, the Finsteraarhorn, a worthy ruler over such a court of noble vassals. Although the fact had been frequently forced upon our notice, yet I never quite appreciated the enormous quantity of snow which was lying this year in the high Alps until the present time, when I was able to see at a glance how changed even familiar objects were by their unaccustomed mantle. This was especially manifest in the neighbourhood of the Trugberg Glacier, the ice-fall of which was almost entirely concealed, while the rocks on its right bank, where George and I passed a night in 1862, were almost indistinguishable, and would certainly now have afforded quarters even less comfortable than we had then found, which is saying a good deal. The long range of the Grindelwald Viescherhörner, too, which ordinarily shows a wall of rock above the Trugberg Glacier, was now masked by steep slopes of snow, through which the rocks only cropped out here and there, but what chiefly interested and disgusted Almer and myself was the sight of the tremendous cliffs of the Schreckhorn, perfectly white with snow. Now we had looked forward to the ascent of this, to my mind the most attractive of all the Oberland mountains, as the finale and crowning 'course' of my campaign, never doubting but that by the end of July the rocks would be in a sufficiently good condition, and our

disappointment at finding them in a state which would evidently render the ascent for the time quite impracticable, was as bitter as it was unexpected. However, notwithstanding Almer's authoritative dictum, 'Mit so viel Schnee, kommen wir nicht auf den Schreckhorn,' I was very loth to abandon my long cherished plan, and continued to nourish a secret hope that all might yet be well.*

In spite of a bright sun, the wind was not too warm, and by 9.5 a.m. we had had enough of it, so, after a parting look round, we took our departure down the arête by which we had mounted, but, had we not been bound for the Lötschen Thal, we could have easily gone down to the Eggischhorn by the regular route, as was afterwards done by Hornby's party. The descent required as much care as the ascent, and the snow was in an even more ticklish state, but it occupied less time, and at 9.45 we reached the Col on the ridge, where we remained for eating purposes till 10.15, and then resumed our downward journey. We glissaded down the lower portion of the final slope, and then had a long and fatiguing grind down the crevassed slopes beneath, the snow being thoroughly softened and letting us in at nearly every step. Indeed, I found it, as a rule, more advantageous to avoid the steps of the leader and strike out an independent course, to the right or left, by which manœuvre I was often able to slide or slip along for yards at a time, without the otherwise inevitable plunge. Almer did the whole of the work, as Eggel, after going ahead in a spiritless way for less than ten minutes, declared that he was too tired to do any more, whereupon he was sent to the rear, and remained there for the rest of the day. The crevasses on the lower slopes were more insecure than they had been in the early morning, and a certain amount of dodging was required before we were fairly down on the level glacier. The snow here was in a worse condition than ever, and we had a most irritating walk, our tempers not being

* It has since been shown that snow, far from impeding, facilitates the ascent of the Schreckhorn. In the season of 1866, when the quantity of snow was enormous, several ascents of the mountain were made without any serious difficulty being experienced, and in far shorter time than had been required in previous years.

materially improved by finding ourselves upon several occasions suddenly plunged above our knees into some glacier brook, whose waters were completely hidden by the snowy covering. At 11.45 we rejoined our baggage on the big stone, and from there might have reached the Belalp in two hours more, so that the ascent of the Aletschhorn from that side is not a formidable expedition, either as regards difficulties or the time required for it.

The heat was most intense, and the thought of the plod over the smooth snow fields of the Beich Firn before we could reach the Col was not a pleasant one. However, every moment lost would increase our ultimate labour, so at 12.15 we shouldered our respective packs, and turned towards the moraine on the right bank of the Ober Aletsch Glacier, under the Thorberg, as the long promontory is called, which projects from the Schienhorn, and separates the two glaciers. The snow between the interstices of the moraine let us through up to our waists, and it was with gloomy anticipations that we rounded the last spurs of the Thorberg, and emerged on to the main glacier, which stretched away for a long distance in front, covered with snow, which could almost be seen melting under the burning sun. We were about to strike into the middle of this cauldron, when Almer's eye was attracted by an almost imperceptible difference between the colour of the snow under the cliffs on the left bank and of that in the middle of the glacier. 'There,' said he, 'I think we shall have avalanche snow, let us try'; and, changing our direction accordingly, we found that he was right. The winter avalanches from the Thorberg had not yet entirely melted, and the particles being welded more closely together than on the regular névé, the surface was less sensible to the heat, and the result was, that, instead of floundering about hopelessly, as we had expected, we walked on very fast, scarcely sinking above our ankles. A plateau of névé stretched right up to the ridge at the head of the glacier, for which we were making, but was separated from the lower level at which we were by a rather broad ice-fall, neither very steep nor very much broken, which was divided into two arms by a low shelf of rocks. I know scarcely anything more beautiful than the

ice scenery by which we were surrounded, as we approached the base of this final ascent. We were standing in the centre of a vast *cirque*, into which extensive glaciers streamed on all sides. In front was the double fall, just mentioned; on our right, a broad affluent came down from the Schienhorn; while, on our left, a great bay between the Gross Nesthorn and Kippel Breithorn was filled by a superb sea of séracs. Of the three peaks which thus looked down upon us, the Gross Nesthorn, though yielding in height to the Schienhorn,[7] is incomparably the most imposing. Its ascent on this side would be difficult, but, Almer thought, practicable, though I felt rather doubtful on the point, the sides of the mountain being loaded with precipitous séracs and ice-cliffs, which it would be equally difficult either to scale or avoid.* From the ridge of the Beichgrat above the central ice-falls, connecting the Kippel Breithorn and Schienhorn, a prominent double tooth of rock projected, the highest point of which is, doubtless, that marked on the Federal map 3120 mètres, or 10,237 feet, and both to the north and south of it were very tempting-looking depressions.[8] The question now was, which of these was the Col; and, as Eggel turned out to be profoundly ignorant on the subject, although when I engaged him he had professed to know all about it, Almer and I had to settle the matter for ourselves, and, after some discussion, determined to make for the southern gap, between 3120 and the Breithorn. I may as well at once say that we were entirely wrong in our decision, the true course being to the north, a fact of which, later in the day, we were convinced, and which has received confirmation since, Mr. Tuckett having informed me that he (who made the passage from the Lötschen Thal, a week or so earlier), had passed at that point. Keeping to the north side of the *cirque*, we struck across it to the foot of the ice-fall, and at 1.20 reached the base of a steep, narrow slope of old snow, running up between a patch of moraine and some rocks, forming part of a spur of the Schienhorn. Over these rocks trickled some very dirty water, with which we quenched our burning thirst before

* The Gross Nesthorn was ascended in 1865 by Mr. George from this side without any difficulty at all.

tackling the snow-slope that promised to lead us on to the upper plateau. The slope was sufficiently steep, but Almer kicked the steps with his usual vigour, so that we were soon near the top, when, turning to the left, we scrambled across the moraine, which was chiefly composed of fine shale that slipped away under the foot, and then, after a few zigzags over good snow, we were fairly on the upper plateau which stretched away in gentle slopes of névé to the ridge of the Beichgrat. In consequence of our previous manœuvres, we were very much to the north of the point at which we proposed to pass the ridge, so now had to strike across the intervening snow-fields diagonally, in the course of which operation we realised what we should have suffered lower down, had not Almer fortunately thought of keeping to the avalanche snow, out of our direct course, instead of making straight for the Col by the centre of the glacier, — the snow was, without exaggeration, up to our middles, and we almost waded through it. As we advanced, we opened out several depressions in the ridge north of point 3120, which almost induced us to change our direction, but, from some reason or other, we were all persuaded that the real Col lay to the south; so the temptation was resisted, and we kept on our way, until at 2.20 we stood in the desired gap, and found ourselves looking down a precipitous couloir on to the Distel Glacier and the head of the Lötschen Thal.

'Ganz unmöglich' said Eggel, as he glanced down the *cheminée*; and I was almost inclined to agree with him. But the cautious Almer said nothing until he had carefully examined the enemy, and, when fully satisfied, at once set my doubts at rest, with the cheering dictum, 'Schwierig, aber es geht.' That point settled, we sat ourselves down on the rocks to look about us, our principal anxiety being as to the locality of the cows in the Lötschen Thal, which, however, was soon relieved by our discovering them, precisely where we should have wished them to be, viz., at the Güggi Staffel Alp, just below the end of the Lötschen Glacier, and close to the entrance of the Inner Pfaffler Thal, up which our morrow's route would lie. The long snow plateau of the Petersgrat and the bold peak of the Tschingelhorn were straight in front of

us, but the Wetterlücke and Lauterbrunnen Breithorn were concealed; the beautiful snow summit of the Kippel Breithorn, which rises to the south of the Col to a height of 12,452 feet, is certainly not accessible from it, as a lower point, itself by no means easy of access, intervenes. We had no means of determining the height of the Col, but, assuming the correctness of the figures placed on the Federal map against the rocky tooth to the north, it can scarcely exceed 10,000 feet. At 2.35 we commenced the descent down the rocks on the right side of the couloir, a course which was rendered necessary by the presence at its very head of a perpendicular and almost overhanging wall of snow, some fifteen feet in height, which effectually cut off access to the centre of the gully. The rocks were very steep, and so broken, that the greatest caution was required, and it was with considerable difficulty that we crept down a short distance, to a point from which we could get on to the snow which, as usual in such positions, occupied the middle of the channel. But this snow was only resting on ice, and Almer hesitated to take to it, as he feared that, in its half-melted condition, there was not enough to give footing, and that we might create an avalanche. However, further progress by the rocks was almost impossible, so he determined to run the risk. The three or four steps that were necessary, in order to get off the rocks, were the most nervous of the whole day, the rocks close above the snow being glazed with ice, while the hand-hold was *nil*. Eggel and I, however, held hard until Almer was safe in the centre of the couloir, and had proclaimed the welcome fact that the snow was better than he had expected, when we followed in turn, holding on by our eye-lids. The couloir was only a few feet wide, and its inclination must have been at least 50°, but, once committed fairly to the work, we got on pretty well, the snow being thick over the ice and not so soft as we had supposed. Still the greatest care had to be exercised to avoid a slip, and we all went down with our faces to the snow, Almer kicking and treading down the steps, which we fished for in turn, holding on firmly to the step above until at least one foot was securely landed. Lower down, the slope was less steep, and we were

able to adopt the usual and more agreeable style of progression, face forwards, until we gradually neared the bergschrund at the bottom,—the dimensions of this were insignificant, and at 3.25 we crossed it, without any difficulty, on to the névé of the small Distel Glacier.

During our descent furrows in the snow had caused us to suspect that we had adopted a route, which, though new to human beings, was not entirely unfrequented by missiles antagonistic to such intruders, but we were scarcely prepared for the enormous quantity of stones and avalanche débris, lying across the Distel Glacier, which had evidently travelled from the heights above by the same course as ourselves. This satisfied us that we had not selected the true Col, as no man, *ascending* from the Lötschen Thal, would be mad enough to select such a line of march, after ocular proof of the peril attendant on the ascent; the less so, as the slopes, leading up to the ridge north of point 1320, are from that side obviously the proper way, though at all points they are exceedingly steep. Our connection with the Distel Glacier, which flows steeply down to the foot of the Lötschen Glacier, was not long, as we simply crossed it, and at 3.30 got off the ice on to the slopes of the Beichflühen on its right bank, when a halt was made for ten minutes to take off the rope. Thenceforward our descent was rapid, the slopes, though steep, being very easy to traverse, and we scudded merrily along over stones, shale, and, finally, scanty herbage, admiring the beautiful glacier of Jägi which streamed down on the opposite side of the valley, from between the Lauterbrunnen Breithorn, and the fine peak of the Grosshorn. It would be quite possible to get on to the ridge connecting those peaks from the Lötschen Thal, but the practicability of a descent on the Lauterbrunnen side is something more than doubtful.* The necessities of the ground drove us gradually to the right, and, the final slopes being very abrupt, we had to make a considerable détour in that direction, before, at 4.15, we reached the level of the Lötschen Glacier, which had next to be crossed.

The moraine which had first to be scrambled over was of considerable size, but the glacier itself was particularly smooth

* The pass was made by Mr. Hornby's party in 1866.[9]

and easy, and, so far as we could see, continued so right up to the depression of the Lötschenlücke at its head, the walk to which must be the very incarnation of dulness. The right bank of the glacier was soon reached, and we shortly hit upon a faint track, which gradually improved into a decent path, that led us over pleasant pastures to the highest chalets in the valley, those of the Güggi Staffel, at 5.0 p.m. Only women were in charge, who seemed by no means anxious to receive us, but at last consented on our solemn promise to pay for whatever we had, as to which they seemed strangely sceptical. The chalets themselves were well-built and clean, but the accommodation was not first-rate, there being no hay for our beds, and only a quantity of Alpine roses, scattered on the floor of our hostess's bedroom, of which, however, we were only too glad to avail ourselves. The evening was lovely, and, while Almer and Eggel set off to reconnoitre the Inner Pfaffler Thal, I lay on the Alp, studying our couloir, the appearance of which, from below, was positively appalling, so that I found it hard to believe the little actual difficulty we had encountered in its descent. While thus engaged, the sudden appearance of a hen suggested the possible presence of eggs, and an omelette for supper; so, when the men returned, inquiries were made with a favourable result, as a dozen eggs were produced, with which Almer concocted a capital omelette, after the demolition of which we retired for the night.

NOTES TO CHAPTER XIII

[1] See Plate XIV.

[2] This peak (now called the Nesthorn), 12,535 feet in height, was first ascended by Messrs. George and Mortimer, in September 1865. The view from the summit is exceptionally extensive,—the Ortler and the Aiguille de la Trélatète both being visible. (See *Alpine Journal*, vol. ii. p. 211.) Moore and Horace Walker climbed the Gross Nesthorn in July 1872. The ascent was made from the Beichfirn and by the West Arête, and was found quite easy. The party in descending made the first crossing of the Gredetsch Pass, reaching Visp in the evening, having started, of course, from Belalp.

[3] This ridge separates the Ober from the Mittel Aletsch Glacier, but the point at which Moore struck it was so high that he could look right over the ridge of the Drieckhörner (which lies between the Mittel and the Grosser Aletsch Glaciers) to the Viescherhörner beyond, and over them to the Finsteraarhorn and Schreckhorn.

[4] The Aletschhorn was first ascended in June 1859 by Mr. Tuckett, with Johann Bennen. They passed the night at a gîte in the rocks beside the Middle Aletsch Glacier, having started from the Eggishorn Hotel, to which also they returned. (See *Peaks, Passes, and Glaciers*, second series, vol. ii. p. 33.)

[5] The Bietschhorn (3953 mètres, 12,971 feet) was first climbed by Leslie Stephen in 1859. There is a lively and characteristic account of this climb in the *Alpine Journal*, vol. i. p. 353. (See also Studer, *Eis und Schnee*, vol. i. p. 212, etc.) The second ascent was made by the well-known Swiss climber, Herr von Fellenberg, in 1867. Since this the ascent has been made by several routes, but the rocks of which the mountain consists have a bad reputation for rottenness. Moore was very anxious to climb the Bietschhorn, but the expedition never came off. In July 1870 he started with the Walkers from Ried for the purpose, but the weather proved hopeless, and the party had to content itself with the Baltschieder Joch. Later on in the same month he went to Ried again for the same purpose, but the weather was too bad even to make a start. In July 1873 he made another unsuccessful attempt, and later on I find from his Journal that he had intended to make another try at this mountain, but was again prevented.

[6] For a note as to the Walkers' ascent of the Balmhorn (July 21, 1864), see *Alpine Journal*, vol. i. p. 378, and Studer, *Eis und Schnee*, vol. i. p. 271. Miss Walker formed one of the party on this ascent, which was repeated by some Swiss climbers a few weeks later.

[7] The later surveys show that this is a mistake. The Schienhorn is given in the Siegfried Atlas as 3807 mètres (12,492 feet), and the Nesthorn as 3820 mètres (12,534 feet). The name *Gross Nesthorn* is now used as an alternative for the Bietschhorn. The Schienhorn was first climbed by Herr Häberlin in August 1869, from Ried in the Lötschenthal. (See *Jahrbuch d. S. A. C.*, vol. vi.)

[8] The mistake made here was apparently due very much to the maps of the time. The point 3120 mètres was probably the actual point 3203 mètres, which lies in fact just south-west of the actual pass, the height of which is now given as 3136 mètres (10,290 feet). The party apparently traversed the rocks towards the west in descending them, and crossed the narrow upper shelf of the Distel Glacier almost to the north. Some fifteen years ago, when I crossed this pass, it was certainly simpler to descend the main glacier to a lower point and then follow the moraine on its right bank, eventually reaching the valley far below the snout of the Lang Gletscher (Lötschen Glacier of Moore), from which point cow paths led down to the valley.

[9] As to the crossing of this pass—the Schmadrijoch, 3311 mètres (10,864 feet)—by Messrs. Hornby, Morshead, and Philpott, on the 4th August 1866, see *Alpine Journal*, vol. ii. p. 411, vol. iii. p. 89, and Studer, vol. i. p. 211.

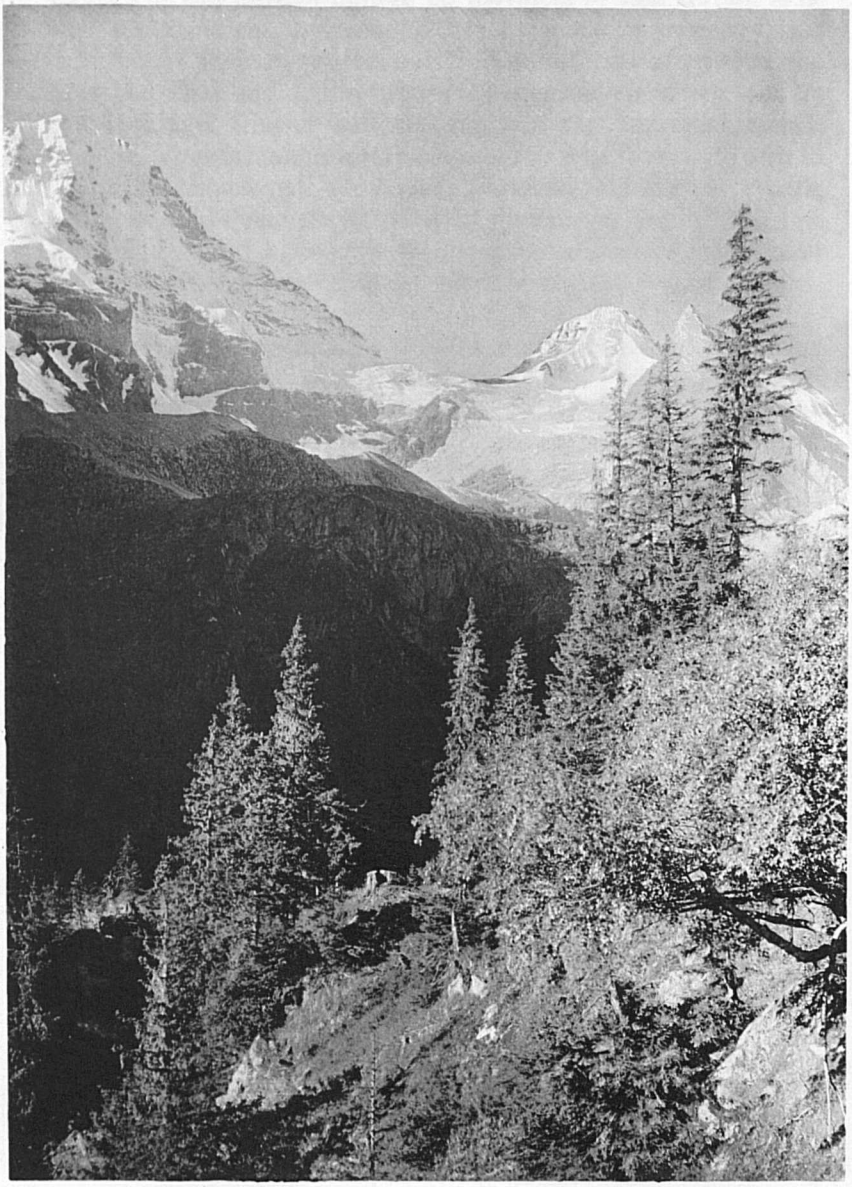
CHAPTER XIV

THE WETTERLÜCKE

Friday, 22nd July.—My bed of roses was not free from the traditional thorns, and, on the whole, I should have preferred the prosaic straw to the more poetical material. Behind my head, moreover, was a ruminant and bilious cow, only separated from me by a thin partition, who took particular care that I should not be oblivious of her presence for more than a quarter of an hour at a time, so that altogether the night was not a luxurious one, and I was by no means sorry when Almer called me at 1.30 a.m. to commence the labours of another day. Some coffee was brewed, and our hostesses paid what they demanded for our accommodation, the sum being ludicrously small, after their doubts of our solvency last evening, and then, at 2.40 a.m., we started, the weather not presenting so favourable an appearance as we could have wished, and the moon, on whose light we had reckoned, being almost obscured by clouds.

The problem, the solution of which we were about to attempt, was a peculiarly interesting one. The depression of

the Wetterlücke between the Tschingelhorn and Breithorn is not only the natural line of communication on the map between the head of the valley of Lauterbrunnen and the Lötschen Thal, but it is the best marked Col across the chain of the Bernese Alps between the Jungfrau and the Gemmi. Seen from Mürren, Berne, or any point commanding a distant view of the range, it is, like the Jungfraujoch, 'obtrusively and offensively a pass,'[1] but, also, like its loftier and more famous neighbour, nature has placed on the north side such serious impediments to access, that up to the time of our expedition, the pass remained untraversed, and its snows unprofaned by human feet. In Studer's *Hochalpen*, indeed, mention is made of an alleged record of a passage at this point having been effected in the year 1783 by four miners of Lauterbrunnen, who crossed to the Valais for the purpose of attending the Catholic service, and returned the next day by the same route; and Mons. Studer adds that the pass had since been abandoned in consequence of the impassability of the Breithorn Glacier. Now, I must confess to being profoundly sceptical as to the truth of the numerous stories current in Switzerland about the existence of passes, in former years comparatively easy of access, at points which are now either quite inaccessible, or only to be reached with great danger and difficulty. The abandonment of all these alleged passes is accounted for by the increase in the size of the glaciers, but it is in no case stated whether this increase was gradual or sudden, and it is certainly curious that, if true, there should be no reliable record, official or otherwise, of a physical change which must have been productive of such serious inconvenience to the inhabitants of the valleys on either side of the several chains.[2] I cannot myself believe in such an increase of the glaciers at any point within anything like a reasonable period, as would have closed routes formerly practicable; but it would be a cheering thing to suppose such an event possible now-a-days, as, without some such interposition to convert paths, now traversed by mules and tourists, into places suitable for the haunts of chamois and mountaineers in general, and the Alpine Club in particular, the supply of novelties in the high Alps will soon be exhausted. However, whether the



THE WETTERLÜCKE.

passage of the devout miners be mythical or not, certain it is, that no travellers, animated either by piety or curiosity, had followed in their steps, the only recognised route between the Lötschen Thal and Lauterbrunnen being the circuitous one by the Tschingel Glacier and the ridge of the Petersgrat, which, though by no means uninteresting, is too free from difficulty to be quite satisfactory. We hoped, therefore, to establish a route, which would be shorter in point of distance, if not in point of time, and would also have that spice of difficulty and uncertainty about it which gives a relish to the enjoyment of even the finest scenery.

Leaving the chalets, we turned immediately up the steep grass slopes behind them, in order to get over the shoulder of the hill between us and the Inner Pfaffler Thal, the last of the numerous short glens which drain down into the Lötschen Thal. The researches of the men the night before had resulted in discovering a faint track up these slopes leading in the required direction, and upon this track we soon hit, and followed it up, until we were brought to a point overlooking the glen at a considerable depth below, when it appeared to think that its mission was fulfilled, and abruptly vanished, leaving us to adopt what further route we thought best. This was awkward, but we had no fancy to lose the height we had gained, so in the first place we tried to keep along the hillside at about the same level. Difficulties, however, thickened round us, the slope of the ground was very precipitous, and we were encountered by smooth faces of rock, the passage of which, in the dark, was neither easy nor safe. After a few minutes' scrambling, therefore, we agreed that discretion was the better part of valour, and determined to make our way down to the torrent without further loss of time. This proved a task of no great difficulty, and, working down through the scanty forest on the hillside, we were rewarded, when fairly in the bed of the valley, by stumbling upon another track, which was visible for a long way in front, winding along the left bank of the stream.

The Inner Pfaffler Thal is an inexpressibly dreary glen, nearly bare of vegetation, and altogether uninteresting. It is closed at the head by two glaciers, of which we first came in sight of

the one we were *not* going to traverse, that comes down from the Tschingelhorn in a south-easterly direction, and undoubtedly communicates directly with the Petersgrat, which could be reached by it. The main glacier, however, which flows due south from between the Tschingelhorn and Breithorn, soon came into view. Both are of precisely the same character, terminating at a considerable height above the bottom of the valley on very steep rocks, which they must once have covered entirely. The one first mentioned descends rather lower than the other, but in either case the final tongue of ice is insignificant, the névé scarcely giving rise to any *glacier*, properly so called. The inclination of the valley is very gradual up to the foot of the rocks below the glacier, but, as these were evidently inaccessible *en face*, we gradually bore away to our right, in which direction there seemed most chance of getting on to the upper névé without serious preliminary difficulties. The grass slopes were steep, but we mounted rapidly, and, at 4.40, after some tolerably stiff scrambling, and being once obliged to retrace our steps, we were high above the valley, and at the foot of a very steep and narrow couloir, which stretched invitingly upwards. We all agreed that by daylight it would be possible to reach this point from the chalets, as we had first tried, by keeping at a high level along the rocks and grass slopes, but in the dark it would not be easy to find the way, and not very wise to try to do so. The couloir was as steep as was agreeable, and the footing by no means too good, but Almer led us up at a great pace, showering down stones at the rate of nineteen to the dozen, some of which came in unpleasant proximity to our heads. I found, indeed, some difficulty in keeping up, as, on the lower slopes, I had had an awkward fall, and, in saving myself, damaged my right hand, which for the time was *hors de combat*, no slight loss in a climb of the nature we were engaged in. However, we got to the top in due course, rather pumped, and, after a less fatiguing pull over the stone-covered slopes above, came, at 5.15, to the moraine on the extreme left bank of the glacier, close under the great southern back-bone of the Breithorn, and this was selected as an eligible place for breakfasting, in consequence of the presence of water close at hand.

We were already at a great height, indeed, not far below the level of the Col, as, looking across the lower part of the glacier, whose tail was now a long way beneath us, our eyes ranged over the level snow-fields which extend along the base of the Tschingelhorn towards the Petersgrat, although we could not see the exact point where it is usual to cross that ridge. Looking down the Inner Pfaffler Thal, the magnificent peak of the Bietschhorn was straight in front of us, rising precipitously from the very abrupt and rugged ridge which forms the left flank of the Lötschen Thal. The mountain was seen to perfection from base to summit, and certainly vindicated its claim to consideration as one of the most striking single summits in the Alps. Less satisfactory was the prospect in other directions, where heavy masses of cloud were gathering and drifting up the valley towards us with ominous rapidity, suggesting the desirability of gaining the Col with as little delay as possible, so as to get a look down on the Lauterbrunnen side before everything was obscured. We had never expected serious difficulty on the south side of the pass, but had been prepared for some trouble in getting on to the glacier. This, however, the most doubtful part of the first stage of the expedition, had been accomplished with comparative ease, and at 5.50, having put on the rope, we started again, expecting a short and easy run over a level and uncrevassed glacier.

Crossing the moraine, a broad tract of avalanche débris from the cliffs of the Breithorn first presented itself. This did not appear to have fallen recently, and was traversed without difficulty, and on getting off it, we were rejoiced to find that the snow on the glacier was in excellent order, scarcely yielding at all under our weight. In consequence of the détour necessary to approach the glacier, we were now far to the right of the Col, which was hidden from us by the intervening fields of névé. We, therefore, struck well away to the left in its supposed direction, which was indicated by the western arête of the Breithorn that falls directly to it. We had intended, had the fates been propitious, to have made an attempt to ascend that mountain, which has a height of 12,383 feet, from the Col, but the threatening state of the weather necessitated the abandon-

ment of the plan, there being no time to lose in accomplishing the main object of the expedition. Almer and I, however, carefully examined the arête, and came to the conclusion that, even under the most favourable circumstances, the ascent by it would probably be impracticable, as it is very long and serrated, broken by enormous natural stonemen and deep and broad clefts, which would offer almost insurmountable obstacles to progress along it. As we passed right along the base of the peak, we had excellent opportunities for discovering a vulnerable point, if such existed, but we only saw one that seemed to offer any chance of success. This was in the angle between the western and south-western spurs, where a very long and steep snow couloir, broad at the bottom, but gradually narrowing in its upward course, ran very deep into the heart of the mountain, certainly in the direction of the summit, but, so far as we could see, not up to it, and what intervened we were unable to make out. Nevertheless, under other circumstances we should have gone up this couloir to see what was to be seen, as the mountain, though not one of the first order as regards height, is attractive from its boldness of form, and must command a most interesting view.* The glacier was at first particularly easy, and our route devoid of incident, but its inclination gradually steepened, and we were soon brought up at the edge of a magnificent chasm, some fifty feet in width and fringed with gigantic icicles in the most exquisite manner. Beautiful as the obstacle was, we could willingly have dispensed with its presence, as in either direction it ran for a considerable distance before it was hidden by a canopy of snow, and, even then, several trials were made before a point was found where the covering was sufficiently firm to allow us to cross. This was merely the first of similar difficulties, as we found ourselves entangled in a perfect maze of huge gulfs in the névé, few of which, indeed, gave any outward sign of their enormous extent, only a small crevice being, generally speaking, visible in the snow, which was found on examination to give access to a gulf, of the depth and dimensions of which

* The summit of the Breithorn was reached in 1865 from the Wetterlücke by Herr von Fellenberg, and on the same day, a few minutes later, by Messrs. Hornby and Philpott. The ascent proved quite easy.[3]

it was difficult to form a just idea. The difficulty of finding a passage was, of course, somewhat lessened by this state of things, but even greater care had to be exercised than would have been necessary had the chasms been fully exposed to view. As it was, we were several times hard pushed to find a secure crossing, and upon more than one occasion the whole party at once was found to have been standing on the snowy roof of one of these 'caves,' when two of us at least were supposed to have been on firm ground. In short, I have been on very few places where, with so little actual difficulty, every step of the way has been so doubtful, and at a later period of the season, or in a year with less snow than 1864, a party trying the pass might find it impossible to traverse this curious névé without a ladder. The distance, too, was much greater than we had supposed, the appearance of the slopes from the valley below being very deceptive, while they are by no means so gentle as would be imagined; but Almer led with his usual courage and skill, and gradually picked his way amongst the hidden dangers, until we emerged from the labyrinth on to a comparatively gentle and quite uncrevassed slope of snow, which stretched away towards the Col. While we were traversing this, the clouds which had been steadily gathering, suddenly swooped down upon us, and completely blotted out the surrounding objects, so that we could not see five yards in any direction. The mist was of that peculiar milk-and-water colour which is most unfavourable for making out anything, and we really could scarcely distinguish the snow at our feet from the atmosphere around us. Still, we kept on our way in the supposed proper direction, knowing that, so long as the ground sloped upwards, we could not come to much harm, but the inclination became more and more slight, until at 7.15 a.m. we halted simultaneously, with an instinctive feeling that we were on the Col. Almer gave a shrill 'Jodel,' which, after a few seconds, was answered back by the cliffs of the Tschingelhorn, and our exact position was thus confirmed; so down we sat on the snow, and twiddled our thumbs, in the hopes of an eventual clearance.

To attempt the descent without seeing something of the way was not to be thought of, as neither Almer nor myself had the

foggiest notion of the details of the Breithorn Glacier, and we only knew for certain that it was so steep and broken as to be reported impracticable. It was still early in the day, and we could afford to sit, if necessary, for a considerable number of hours. The air, too, was remarkably warm, and there was a total absence of wind, so that we might have been a good deal worse off. Half an hour passed, and the state of affairs remained the same, though the sun did make one desperate effort to force his way through the dense mantle of mist, without, however, the success he deserved. But at 8.0 we thought we might as well creep down a little way, so set off, striking well away to the left, towards where the Tschingelhorn was supposed to be, in which direction we had, for no particular reason, taken it into our heads that the glacier would be found least broken. The descent was very gentle, and we had not gone many yards when the mist suddenly lifted, disclosing to us our position, on the edge of a tremendous crevasse running along the base of the Tschingelhorn, and, at the same moment, the rain began to fall heavily. We had, however, much to be thankful for, as the inconvenience of getting wet through was trifling compared to what would have been caused by a snowstorm, or the continuance of the fog, involving the possible descent of the whole party into the beautiful, but frigid, bowels of a crevasse. The chasm under the Tschingelhorn was about forty feet in width, of great depth, and entirely unbridged, so that progress along the left side of the glacier was for the present impracticable, and we, therefore, struck well away to the right in the direction of the Breithorn, descending very gradually. The glacier here was not steep, but undermined by chasms of a size which I have rarely seen paralleled. They were mostly covered with snow, but snow so soft as to be quite untrustworthy, stretching from one side to the other without intermediate support. It soon became evident that our rope must be rearranged, so the surplus coils which had been wound round Eggel were taken from him, and the whole hundred feet brought into play, so that we had an interval of more than thirty feet between each person, Almer, of course, going in front, followed by myself, in the middle, and Eggel bringing up the rear, the countenance of the latter worthy expressing any-

thing but satisfaction at the position in which he found himself.

Everything being thus arranged, Almer cautiously advanced, sounding vigorously with his axe at every step, and in many places turning aside, where I should have gone straight on, unsuspicious of danger. We all walked as if treading on eggs, and took particular care to keep to a hair's breadth in the footsteps of the leader, at the same time preserving the rope perfectly taut, not a very easy thing to do, with so great a length between each member of the party. So manœuvring, we passed several monsters with more or less trouble, and gradually described a gigantic zigzag, until we were once more near the left side of the glacier, on the brow of the first great plunge which it makes towards the lower level, where, as was to be expected, the dislocation became very much more marked, and the covering of snow less general. Dodging about, we progressed pretty well, until we suddenly found ourselves on the brink of an enormous crevasse, running from the ridge of rocks to which the name of Wetterhorn is given on the map, and which divides the upper portions of the Breithorn and Tschingel Glaciers, away to the right, until it merged in chaos that reigned supreme in the centre of the glacier. At the point we had struck there was no bridge, but we turned along the upper edge to the right, never doubting but that we should either be able to turn the enemy, or find some sort of a way over; but we began to be slightly uneasy, when it appeared that the further we went in that direction, the wider became the obstacle, and the glacier generally more hopelessly impracticable. 'Hier geht es nicht,' said Almer; and we, therefore, turned in our steps, and steered in the opposite quarter towards the rocks of the Wetterhorn, casting the while anxious glances into the bowels of the chasm, in the vain hope of suddenly discovering a bridge; but at only one point was there even an apology for such a convenience, and there it was represented by a narrow strip of snow débris, which projected from either side of the crevasse a certain distance below the surface, and was evidently the relic of an avalanche. Where it merged in the walls of the chasm it seemed fixed with tolerable firmness, though at no point could it have been more than a foot and a

half thick, but, in the centre, at the crown of the arch so to speak, it almost died away, leaving a mere patch of snow but a few inches deep. Almer looked at this for a few minutes, and then, turning away with a shake of the head, kept on his course towards the rocks, on reaching which a feeling of blank despair came over me. We were close to them, but completely cut off by a broad trench, caused by the melting away of the glacier; not that it much mattered, as, under any circumstances, it would have been impossible to traverse them, as their eastern face, which was towards us, proved to be a perfect wall. The end of the crevasse abutted against these cliffs, and yawned hopelessly in front of us; so, with despair at our hearts, we again turned in our steps, and I began to meditate upon the necessity of having to return to the Col, and make our way round the Tschingelhorn to the Petersgrat,—in the state of the weather by no means a pleasant prospect. Almer, however, stood gazing fixedly at the débris, which, as before described, formed at one, and only one, point a feeble connection between the two sides of the crevasse, and after an interval of profound meditation, announced his intention of trying to get across and, in spite of my adjurations to do nothing rash, adhered to his determination. Eggel and I, therefore, secured ourselves up to our middles in soft snow a short distance above, and, having satisfied ourselves of our ability to resist a sudden jerk, commenced slowly paying out Almer, who disappeared over the edge of the chasm, and was lost to view. The excitement of the next few minutes was intense, while we heard him busy with his axe, and I never experienced a more intense feeling of relief and joy than when our gallant leader emerged on to the opposite side of our baffled foe. It was now my turn, and, advancing to the edge, I let myself carefully down in Almer's steps, holding on by my axe, until I landed on the end of the débris, and commenced the passage. The width of the crevasse was about twenty feet, but of its depth I cannot speak, as the eye lost itself in a blue haze, and in such a position I did not care to investigate the matter too closely. I never could have believed it possible that so frail a structure, as this bridge, would support a man's weight, and at one point in the centre Almer's foot had actually gone through, but I

effected the passage in safety, Almer drawing me in, as Eggel paid me out, until the further side was gained. Eggel then followed, and we resumed our descent through a labyrinth of which I shall give no description, but content myself with the bare statement, that turning some crevasses, cutting down and up others, and jumping the rest, we arrived at 9.20 on the central plateau of the glacier, having left the most serious difficulties behind us.

Bad as it was, the part of the glacier which we had traversed was smooth and easy, compared with that more to the east under the Breithorn, where ice-cliffs were piled upon ice-cliffs in a way that I have never seen equalled. The lower ice-fall still remained to be passed, and we determined to attack this as near the centre as possible, in preference to seeking a way under the rocks of the Wetterhorn. The event proved the wisdom of our choice, as, though the fall was very steep and broken, we got through without serious difficulty, thanks to the snow which choked most of the huge crevasses, that later in the year might be very troublesome. Below the fall, we got on to a small patch of rocks, which divides the glacier into two branches, of which the western one, communicating with the Tschingel Glacier, is the smallest. We scrambled down on to the eastern, or main, arm, and followed it along the base of the rocks until 9.40, when we reached a point where it curled over in a long steep bank of ice without a particle of snow, towards the Oberhorn Alp. To have cut steps down this would have taken hours, so Almer started off to try and find a way by the western branch. At 9.50, he returned, having been successful in his search, so we again climbed over the rocks, and found a steep and narrow gully between them and the ice, down which we descended with some difficulty, and much care to avoid dislodging the loose stones. It was a dirty piece of work, the rocks being covered with grit, and very wet from the rain, and I was well pleased when, after working round to the right, we were able to make our way on to the smooth and level glacier, covered with easy moraine, at the foot of the steep bank of ice we had thus circumvented.

At 10.30 we halted for a few minutes to take off the rope, and then pushed on over the stone-covered glacier, which gradually

died away on the scanty pastures of the Oberhorn, in the middle of which was an exquisite little lake of deep but clear water. In fine weather, the view from this point, right down the long valley of Lauterbrunnen, and of the great amphitheatre of peaks and glaciers which circles round from the Jungfrau and Roththal to the Tschingel Glacier and Gspaltenhorn, must, even judging from what was vouchsafed to us, be one of almost unequalled magnificence, and the spot is certainly worthy of more frequent visits than it receives. We wandered about a good deal before, at 11.0, we hit upon the wretched 'berg-hütte,' which is the highest hovel in the valley, and then lost a great deal of time in hunting for the path downwards. We tried to get down to the right towards the fall of the Schmadribach, which, springing straight out of the Schmadri Glacier, gains the valley in three successive leaps. At last, however, we found the track in exactly the opposite direction, viz., well to the left, and were again delayed in consequence of our ignorance that it led across the terminal moraine of the Tschingel Glacier; but, once over this waste of stones, all our difficulties were over, and at 11.45 we halted for lunch close to a good spring and a ruined hut. At 12.15 we broke up in pouring rain, and, passing the Steinberg Alp, instead of descending to Trachsellauinen, followed a small path through luxuriant woods, which kept at a high level along the slopes above the left side of the valley, and commanded delicious views of it, and the great precipices of the Jungfrau above the Roththal. We took it very easy, and at 2.5 descended into the regular path down the valley, close to the village of Stechelberg, at the entrance of the remarkable ravine of the Sefinen Thal. Thence, a walk along the char-road, at the base of the tremendous cliffs below Mürren, which no amount of familiarity can render less striking, brought us to the 'Capricorn' at Lauterbrunnen at 3.20 p.m. The passage had thus occupied ten hours and three quarters actual walking, but we had lost nearly an hour in descending from the Oberhorn in consequence of our ignorance of the ground.

Having paid and dismissed Eggel, who, though a poor mountaineer, by no means particularly truthful, and inclined to be extortionate, had answered my purpose, Almer and I started

in a one-horse char for Grindelwald, at 4.20, and, after a very pleasant drive, the rain holding off, arrived at the 'Adler,' where we were warmly welcomed by Mons. Bohren, the excellent landlord, at 6.35 p.m. Having given over my boots to Almer for final and much-needed repairs, I dismissed him to the bosom of his family, with an intimation that for the morrow he was absolutely free, as, having been away from home for six weeks, he would probably have a good deal to see to, and then turned my own attention to dinner, newspapers, and bed.

In Moore's Journal for 1881 he gives an account of his ascent of the Lauterbrunnen Breithorn which is reproduced below. Melchior was, as usual, his principal guide, and Horace Walker was his fellow-climber. The difference in point of view, made by ten years' experience, is very interesting.

Under the date of July 23, 1881, Moore writes :—

As we approached that remarkable Col [the Wetterlücke], we examined with attention the long western arête of the Breithorn which falls to it, and by which we were to make the ascent. In 1864, Almer and I, looking at the same arête from the same point, agreed that it looked too formidable to be worth attacking, and we accordingly abandoned an idea we then had of climbing the peak, which had not then been ascended; now it seemed to us to offer a regular highway to the summit, and to present fewer difficulties than it in fact offers. The very different impression produced upon my mind upon the two occasions is no doubt attributable to the knowledge which I now possessed that the ridge really *was* easy, but, for all that, I cannot understand how in 1864 we so totally misunderstood its true character; even I was then not wholly inexperienced, while Almer was in his prime.

Now, as then, we also observed a broad couloir in the angle formed by the southern and western ridges which might offer an alternative route to the summit, but were not sufficiently tempted by it to prefer it to the ordinary route, if that epithet be applicable to an ascent which, so far as I know, has only been made twice. So we made straight running for the rocks immediately east of the Col, and at 8.50 were seated on them

at a height of 100 feet or so above it, greeted by Mont Blanc, whose distant snows looked, as they always do from this direction, very imposing. The baggage was stowed away amongst the rocks, and with the least possible delay we commenced the serious part of the day's work, after a hasty glance at the ridge which stretched invitingly upwards, as far as a point about two-thirds of the way along it, where it assumed a wall-like appearance, suggesting that *there* at any rate all might not be quite plain sailing.

The first few steps were along the actual crest of the ridge, composed of good firm rocks; then it was necessary to take to the north side in order to turn an awkward corner, and almost immediately to pass over to the south, and follow some gentle snow-slopes before regaining the edge further on. This was then kept to pretty steadily for some distance, successive pinnacles being either climbed over, or turned by their southern face without anything in the nature of serious difficulty; the rocks required sometimes more, sometimes less climbing, but on the whole could not be described as otherwise than easy. All along, the view on the north side, down on to the crevassed névé of the Breithorn Glacier, and into the green depths of the valley of Lauterbrunnen, backed by the great rock wall of the Jungfrau above the Roththal, was interesting and uncommon. At 10.15 we came to the foot of a great tower, beyond which the arête rose towards the final peak so steeply that the feasibility of further progress by it seemed very doubtful. The north face of the mountain was to all intents and purposes a precipice, and it was evident that the greater part of the rest of the ascent must be made by the southern face. The question was as to the best line to take across this, whether to traverse it nearly on a level and then strike straight up, or to endeavour to keep as near the ridge as might be, though below it. Melchior, after some hesitation, preferred the latter course.

The tower had first to be circumvented by a steep and awkward cheminée, which, owing to ice on the rocks, presented a real *mauvais pas*; it was necessary to go on one's knees on a very narrow ledge and then screw round a corner under an over-

hanging bit of cliff,—a manœuvre which required some wriggling, and nearly brought about the catastrophe[4] against which I had throughout the tour been taking every possible precaution. I gave my shoulder a violent wrench, though moving with great care, and for some minutes feared that it was again dislocated, all power of moving the arm being gone; but fortunately the joint had not quite passed the point of recovery, and soon, with a little gentle friction, a welcome 'click' announced that it was in its place again, and I was able to proceed. To me the incident had a satisfactory side, in that it convinced Melchior of what he had, I think, before been a little doubtful, namely, the valid nature of my constant anxiety on this score, and the extent to which it disqualified me for serious climbing.

The tower left behind, the way was once more easy for some little distance. Then it again became necessary to decide whether to traverse the face at a higher or lower level; above, the rocks were smooth and difficult; below, they were more broken and much intermixed with snow. Though involving a little descent, the lower route looked so obviously the best that we were surprised when Melchior elected the other, and relieved when, after not very many steps, he confessed to an error of judgment, and turned down to the lower line. A good deal of care was required here, the face of the mountain being fairly steep, and the snow amongst the rocks rather thin on ice. After a nearly level traverse, Melchior cast off the rope and went off to reconnoitre, returning in a few minutes with a definite plan for our further movements. The snowy cap of the mountain was now nearly over our heads, and he made straight for it up a sort of broad couloir, in which was a good deal of ice; big steps had to be cut, and every caution used, as a slip here would have been serious, but we were soon again on good rocks, and over them speedily reached the snow which stretched up to the ridge. We went as near to the edge as possible, but on the north side was a formidable cornice, not rashly to be approached. The ridge rose gently towards the summit, and the snow on its southern face sloped steeply towards the Lötsch-en Thal. We moved along cautiously, in deep and good snow, and at 11.55, in three hours from the Col, were on the top of the Breithorn

(12,383 feet), or, rather, as near to it as in the condition of the cornice it was safe to go; a point on the ridge a few yards further on may have been six feet higher than where we stood, but to have gone to it would have been rash and to no purpose.

The view in all directions—as must be from a peak so placed—was fine, though with no very remarkable feature except the prospect straight down into the valley of Lauterbrunnen; but our position on the summit, up to our knees in snow and afraid to go too near an overhanging cornice, was not favourable for its enjoyment, in spite of an agreeable temperature. Moreover, the day was well advanced and we had far to go; so, after a very few minutes' halt, we turned to descend by the way we came. Young Melchior led down, and followed with great exactness our upward route, having the best of his father upon two occasions, when the latter questioned the line he was taking. We moved carefully, and with no attempt at speed, and so did not regain our baggage at the foot of the arête till 2.0, when, as water sufficient for a 'ponche' was flowing over the rocks, we voted that luncheon, which was overdue, should be no longer postponed, and made ourselves comfortable accordingly, in that agreeable mood induced by the successful accomplishment of an interesting and not too difficult climb in fine weather.

What we anticipated would be the most laborious part of our day's work still lay before us, in the passage of the snow-field at the back of the Tschingelhorn which connects the Wetterlücke with the Petersgrat. So late in the afternoon the snow could scarcely be otherwise than soft, and when, at 2.45, we started down the rocks that led to the Wetterlücke, and found the snow on the Col well above our knees, we had every reason to look forward to a regular pond. We crossed the plateau which forms the Col, and struck over a low spur of the Tschingelhorn to the snow slopes beyond, then making straight for the Petersgrat. To our great surprise, as soon as the Tschingelhorn rocks were left behind, the snow was in first-rate condition, and we were able to get along at a good pace. Nothing indeed could have been more pleasant than the walk. On our right, the upper part of the slope and the groups of

rocks which crop out from it shut off all view; but on the left, where the snow-field stretches gently towards the lateral glens of the Lötschen Thal, unimpeded by any bounding ridge, there was nothing between us and the Pennines from Monte Leone to Mont Blanc, and that glorious range lay before us clear, save for a few summer clouds which floated about and added to, rather than detracted from, the effect. Looking back from time to time, our friend the Breithorn assumed an aspect more and more imposing as we retreated from it; the arête, seen end on, presenting an appearance of perpendicularity positively startling to any one who has traversed it; as seen from near the Petersgrat, it is not too much to say that the mountain looks absolutely inaccessible.

NOTES TO CHAPTER XIV

[1] The quotation is from Leslie Stephen's *Playground of Europe*, p. 114, where the well-known account of the first crossing of the Jungfraujoch is given. Moore was one of the party who made this expedition in 1862.

[2] The general conclusion arrived at by those who have looked into the matter seems quite to justify Moore's scepticism.

[3] Some account of this double ascent (31st July 1865) will be found in Studer's *Eis und Schnee*, vol. i. p. 254. Von Fellenberg's party slept on some rocks at the foot of the Lauterbrunnen Wetterhorn (a north-east spur of the Tschingelhorn). They reached the Wetterlücke in an hour and a quarter—over hard frozen snow—from their bivouac, and from the pass caught sight of the English party,—who had not followed Moore's route but had gone straight to the Petersgrat, and then traversed the slopes below the Tschingelhorn to the pass, thus avoiding the difficulties which Moore met with on the south side of the pass. There followed something like a race for the peak between the two parties, both of whom apparently traversed the foot of the Breithorn, and ascended more or less by the route indicated by Moore. Finally the Swiss party won the race by ten minutes. (See also *Alpine Journal*, vol. ii. p. 209.)

[4] This refers to the effect of his accident on the ascent of the Weisshorn in 1872, an account of which is given in chapter xi.

CHAPTER XV

THE EIGER AND WETTERHORN

Saturday, 23*rd July*.—I had the pleasure of making the acquaintance this morning of Mr. C. Wigram, whom I succeeded in persuading to join me in an attack on the Eiger on Monday, and in whose company a dull, but not rainy, day was passed in most agreeable idleness. In the afternoon, an old friend, Mr. Whitwell, arrived over the Strahleck, with designs on the Wetterhorn, and in the evening, to my equal astonishment and delight, I was patted on the back by Horace Walker, who, with his father and sister, had just arrived from Kandersteg, after doing the Balmhorn. They also were intent upon the Eiger, so it was, of course, arranged that we would make one party, unless Melchior and Almer should think we were too numerous, a point the discussion of which was reserved for the morning.

Sunday, 24*th July*.—Melchior and Almer, having consented to the union of the two parties, were ordered to procure such other men as were considered necessary for our contemplated expedition. Wigram had with him one Johann von Aa, who

had rashly abandoned the occupation of 'voiturier' for that of guide, but he was considered incompetent for the Eiger, so was informed that his services would not be required on the morrow, upon hearing which he very wisely resolved 'to go back to his horses,' and went accordingly. Peter and Hans Baumann, and Peter Schlegel were ultimately engaged for us, so that we were a party of five, with six guides, Jakob Anderegg being the sixth,—a strong force, but not stronger than the reputation of the mountain for difficulty and labour seemed to require. After an early dinner, we set off for the Wengern Alp, at 3.0 p.m., Miss Walker being mounted on a mule. It was a fine, but very hazy day, without a breath of air, and the intense heat took it out of us considerably, so that the usual halt of ten minutes about half-way up, for a tremendous feed of strawberries and cream, was particularly agreeable. As we opened out the view up the lower glacier of the Finsteraarhorn and Schreckhorn, the appearance of the latter peak was so tempting, that the thought of having to abandon my proposed attack on it was more than ever bitter, and Almer at last consented that the question should not be finally decided, until we saw in what state the rocks of the Eiger were, and that if they were pretty free from snow the attempt should be made.

At 5.50 p.m. we reached the Hotel Bellevue, on the top of the Wengern Alp, where, although I had not visited it since 1862, I was at once recognised, and greeted as an old friend with a heartiness that was really quite refreshing. A capital 'heavy wet' was set before us, and, from the rapid manner in which the victuals disappeared, our early dinner and subsequent dessert did not appear to have had much effect on us. Afterwards we went out to look at the Eiger, which, from this point, is certainly one of the most hopelessly inaccessible-looking peaks in the Alps. The appearance of the rocks below the great sheet of snow or ice which covers the upper part of the mountain is positively frightful, and I could not bring myself to put the least faith in Almer's assurance that they were really not very bad. It was with no slight interest that I once more looked at the Guggi Glacier, through whose threatening séracs a party, of which I was a humble member, had in 1862 forced

the passage of the Jungfraujoch,[1] but the immense quantity of snow on the glacier made it difficult to retrace our route. The northern face of the Mönch, too, was greatly changed, and, Almer and I both thought, looked rather more practicable than when, with George, we had made an ineffectual effort to get to the summit of the mountain by it.*[2] The appearance of the weather, though doubtful, was not bad, and we went early to bed, tolerably hopeful of a decent day for our morrow's exertions, which were expected to be severe.

Monday, 25th July.—We were called exactly at midnight, and, after a hurried breakfast, and the usual subsequent delays, started at 1.25 a.m. amidst fervent good wishes from the members of the establishment, who were all up to see us off. The morning, though by no means perfect, was tolerably fine, the sky being generally clear, and the moon, now on the wane, giving us sufficient light to allow us to dispense with a lantern, and pick our way over the grass slopes in the direction of the Eiger Glacier. Looking towards the valley of Grindelwald on our left, the three peaks of the Wetterhörner stood out wonderfully sharp and clear against the faintly-illuminated sky, while, nearer at hand, the grand forms of the Mönch, Jungfrau, and Silberhorn, not to mention the immediate object of our ambition, were still more imposing. One of the small flags which are placed on the fence running along the crest of the Alp, was secured, to be planted on the summit, in the event of our reaching it, and we then walked on in silence, meditating upon the tough job which, judging from our predecessors' experience, was before us. The Eiger was first ascended in 1858 by a Mr. Barrington with Almer,[3] the second ascent was made in 1861 by Dr. Porges of Vienna, and the third and only other by Messrs. Hardy and Liveing in 1862.[4] The time occupied in the first ascent was, according to Almer, not excessive, but Dr. Porges had to pass the second night half-way up the mountain, with the natural result of being frost-bitten, and Messrs. Hardy and Liveing, having left the inn at about 2.0 a.m., did not reach the summit till 4.30 p.m., nor the Wengern Alp

* The ascent of the Mönch from the Wengern Alp was accomplished in 1866 by Herr von Fellenberg.

THE EIGER AND MÖNCH.

again till 11.30 p.m. On both these occasions, it was the enormous amount of step-cutting required on the upper part of the mountain that ran so into time, and we were, of course, liable to the same thing, but we were not without hope that the exceptional quantity of snow this year might stand us in good stead, and enable us to get on rather faster than our predecessors. Still, although a help on the ice, the snow would probably impede us on the rocks, so that, taking the most sanguine view of things, I did not expect to be back at the Wengern Alp much before eight o'clock in the evening.

Advancing leisurely over the undulating slopes of broken turf, we came at 2.15 to a tract of snow lying between the Alp and the lateral moraine of the Eiger Glacier. Turning sharp to the left along this, we had on our right the glacier, and on our left the long spur which projects in a westerly direction from the great mass of the Eiger, and is, in fact, a prolongation of what may, perhaps, be called the western arête of the mountain. The snow was hard and in good condition, and we tramped along it contentedly enough for some time, rising very gradually, but finally, when the inclination became more rapid, took to a broad shelf of rocks on our left in preference. These were shaly, and particularly pleasant to traverse, but they lasted only too short a time, and we were soon compelled to bear away again to the right over the snow, which now rose very steeply in front of us towards the base of the peak, running up into a very narrow cleft in the rocks, for which we steered. The slope was rather severe, and zigzags were the order of the day, but we mounted rapidly, and should have been in a tolerably happy frame of mind had it not been for the weather, which, as the day dawned, showed unmistakable signs of an inclination to be vicious. Heavy clouds were sweeping up from the plain, and the prospect of failure and an ignominious retreat presented itself to our minds with unpleasant distinctness. Still, we did not give up all hope of, at least, being able to reach the summit, though it was improbable that we should see anything when we got there. But the latter consideration was quite a minor one, and was insufficient to overcome that repugnance to abandoning an undertaking once commenced which appears to be naturally

inherent in the breasts of Britons, male and female alike. Accordingly, we worked away doggedly, and gradually screwed ourselves up into the couloir, at the top of which there was barely room to turn. A few gymnastics of a mild character were, however, all that was required to get us out of the 'cheminée,' and place us fairly on the rocks at 3.30. We were astonished to hear the bleating of sheep on these crags, so far removed from the track of men, and, on looking about us, discovered nine or ten deluded animals, who, our men declared, had wandered up inadvertently, and now, with the stupidity of their race, were utterly unable to find their way down again; so, as they would inevitably starve in their present position, we resolved that, on our way down, time permitting, we would endeavour to drive them back to the regions of grass and civilisation.

We now, however, turned our attention to the rocks, which, to our unmitigated astonishment, proved to be perfectly easy, so that their hopelessly-impracticable appearance as seen from below is a regular delusion. From the nature of the stone, they are rather slippery and very much shattered, but are broken into such an easy staircase, so to speak, that we were rarely obliged to use our hands. There was, indeed, no difficulty of any sort, and care had only to be taken not to knock down the loose masses of stone upon the heads of those members of the party who were in the rear. We, therefore, made good progress, and gradually bore away to the left, until we were close to the edge of the cliffs that form the northern face of the mountain, along the base of which goes the path from Grindelwald to the Wengern Alp. Of the thousands who annually pass under the shadow of this magnificent wall, which in height and steepness alike excels the corresponding face of the Wetterhorn, few can have failed to be impressed with its rugged and precipitous character. But grand and striking as is the view of the cliffs from below, no one who has not looked down them as we now did, can appreciate them properly. Except in Dauphiné, I have never seen so sheer and smooth a precipice, and it is rather remarkable (and fortunate) that, while the northern face of this great mass of rock is cut away so abruptly, in such an

inaccessible manner, its western face should be so comparatively easy and practicable. As we climbed along the edge, a stone, dropped over on our left, would have fallen clear for several hundred feet before encountering any obstacle to its progress; but it must not be understood from this that our position was in the least degree nervous, for the nature of the ground on our right was such, that we were not compelled to keep nearer the edge than we liked, and we were very rarely *obliged* to cast our glances towards the depths below. So we pushed on, until at 4.20 we came to a small level platform, which it was agreed would be a better breakfast-place than any we were likely to find higher up, and a halt for that purpose was called accordingly. The weather remained in the same unsatisfactory state of armed neutrality, but, as it might have been openly hostile, and we were vouchsafed very fair views of the Mönch and Jungfrau, and the plain of Switzerland, we were thankful for small mercies, and were tolerably jovial over our bread and butter, while the avalanches, tumbling away merrily on the Guggi Glacier, 'discoursed sweet music,' as an aid to digestion. Jakob was particularly jocose, and he and I howled at each other, and endeavoured to see who could make the most fiendish noises for the longest time, until we were both nearly black in the face, and the amusement was suspended by our again getting on the move at 4.50.

So far the rocks had been free from snow or ice, but we now came upon patches of constantly increasing size, by which our progress was very much impeded, as every step had to be cut, and the footing, after all, was left very insecure. The guides worked away vigorously, but were evidently uneasy at being thus delayed on a part of the mountain so far below that where the axe has usually to be used. From this moment the question of the Schreckhorn was considered settled, as its rocks, to which those of the Eiger are a 'bagatelle,' would probably be so glazed as to render it impossible to gain the summit under a week at least. 'Well!' said Almer, 'if this goes on, we shall arrive at the top about midnight'; and we certainly began to feel rather blank at the prospect before us, but, nevertheless, by no means wavered in our intention of *getting* to the top, and

accordingly worked away, keeping, as before, more or less to the edge of the cliffs. Suddenly we came upon a most remarkable object, in the shape of an isolated column of rock, standing completely apart from the face of the precipice, with which, of course, it was connected lower down, but at so great a depth that, looking down, we were unable to see the point whence it sprung. On the very top of this extraordinary column was perched a perfectly separate block of rock, exactly like the 'rocking stones' in various parts of England, very much broader at the top than at the bottom, so that it seemed as if a vigorous push, if we could have stretched across to it, would have sent it flying down to the pastures beneath, to the astonishment, and possible bodily harm, of the unsuspecting tourists passing to and from the Wengern Alp. We at length reached a point where further progress straight up was impossible, and we had, therefore, to bear away well to the right, diagonally, across the face of the mountain, which was here pretty well covered with snow, lying at a steep angle below the base of the rocks. The guides stopped and held a consultation, the purport of which we could not at first catch; but it ultimately appeared that they did not like the passage before us at all, being apprehensive that the hard cake of snow, of no great thickness, would not support our weight, and would slip away, of necessity carrying us with it. The obvious idea now arose, whether it might not be possible to get along the rocks above the snow, and Melchior accordingly cast off the rope and began scrambling up them, to see what they were like; but they were hopelessly smooth and impracticable, so that Melchior, practised cragsman as he is, had the greatest possible difficulty in getting along them, and was compelled to return before he had climbed many yards. I believe that both Melchior and Almer were within an ace of turning back, on the ground that the risk to be run was too great, and I was beginning to use (mentally) language of the most unparliamentary character; but, after another short consultation, my objurgations were stopped by Almer leading off, evidently with great reluctance, in the desired direction. We were solemnly adjured to take heed of our steps, and hold on as much as possible by the rocks above us, never letting go until our feet

were secure in the very treacherous holes, which were all that could be cut or knocked in the hard snow that covered the smooth rocks. Not that I think the hand-hold would have availed us much had the expected catastrophe actually come to pass, as Melchior subsequently told us he really thought it would, he having at one point distinctly heard the snow crack underneath us, an alarming circumstance as to which I am rather sceptical, and which certainly was not observed by the other members of the party,—fortunately, as it might have been too much for our equanimity. Still, this was undoubtedly the most critical part of the expedition, and we all breathed more freely when the most obviously dangerous bit was left behind, and the snow became deeper.

Peter Baumann here pointed us out the patch of rocks on which Dr. Porges and his party passed the night, and its appearance was not such as to animate us with a desire to follow his example. A more ineligible place for a bivouac could scarcely have been selected, as they must have found it difficult to sit down in secure positions, and the only recess at all convenient for the accommodation of a human body was selected as its line of fall by a stream of water, which must have been a companion more chilling than agreeable. Getting round the base of the rocks, of which this 'Hotel Porges' formed a part, we were soon fairly on the great curtain of snow with which the upper part of the mountain is clothed, and here our fears were set at rest and our hearts rejoiced by the welcome discovery, after a very few steps, that we really had *snow* before us, and not, as is usual, *ice*. I don't mean to say that ice did not crop up here and there, but it was never for more than a few yards at a time, when, of course, steps had to be cut, whereas, generally, the leader was able to kick a secure step without very much trouble or labour. I carelessly omitted to note the time when we bade adieu to the rocks, but I looked at my watch at 7.30, at which hour we had been fairly on the snow for some time. The weather, which had hitherto been behaving tolerably, now changed its tone, the clouds were driven up around and above us, and it began to snow a little, but this outburst of spite did not last long, and the sky was soon once more comparatively serene. The slope up

which we were climbing was steep, but not extraordinarily so—I should say about 40°, and, as we found it, was not materially different from the thousand and one slopes of a similar character to be found in the high Alps. We kept for some distance pretty straight up, passing several patches of rock, and, above them, bore away to the left again, until, at 8.15, we once more got on to the northern edge of the mountain, looking down, as before, but from a vastly increased height, into the valley of Grindelwald, and here a second halt was made to refresh. With its usual provoking disregard to comfort, the wind, which had not hitherto troubled us, now made itself unpleasantly perceptible, and a bitterly cold, but, fortunately, not violent, breeze rendered our meal the reverse of comfortable. It seems, however, to be an established rule that when a halt of this sort is made at all, it shall not be cut shorter than half an hour, however adverse may be the atmospheric conditions; and it was, accordingly, not till 8.45 that we started on the final stage of our upward journey, all the provisions and other *impedimenta* being left to await our return.

Our course lay along the northern edge of the slope, whose inclination was somewhat smaller than it had been lower down, but, on the other hand, for some distance we were on a patch of hard ice, where steps had to be cut, and our progress was, consequently, impeded,—and this, too, during the only time of the day when the cold was at all severe. What we were traversing was in no sense of the word an arête, but merely the outer edge of a slope, which was certainly cut away in a tremendous precipice on our left, but, on our right, fell away very gently indeed, so that no gymnastics were required to get along, and we only had to keep our feet in the steps. The sky was now clearer than it had yet been, and we had delicious views in every direction, except where the summit of the Eiger itself intervened. The Mönch, whose arêtes looked fearfully sharp, the Jungfrau, and the beautiful peak of the Silberhorn were seen to great advantage, and, on the other side, the eye ranged over a vast extent of comparatively flat country, whose verdant and smiling appearance was the more striking, in contrast to the scene of desolation around us. As we overtopped the lofty ridge, connecting the

Eiger with the Mönch, an old friend, especially dear to Almer and myself, came into view, the Gross Viescherhorn, which stood out imposingly; indeed, a friend of mine, residing not a hundred miles from the Colonial Office, who is in the habit of denying the claim of this mountain of 13,281 feet, to rank as one of the great Oberland peaks, is constrained to admit that its appearance from the Eiger *is* 'objectionably' fine. We kept, generally, a pretty straightforward course, and the ice soon giving place again to snow, we made quick running, and so passed without trouble a spot which, when the mountain is in a different state, is considered by the guides the most difficult on the ascent. This is where a small patch of rocks rises out of the ice, round and beneath which it is necessary to pass, an operation which, when steps have to be cut, I can quite understand is rather a ticklish piece of business. Once round this obstacle, we looked straight up to a point which we supposed to be the summit of the mountain, but on working up to it, this proved to be an optical delusion, as the real summit was further on. The intervening distance, however, was not great, but few more steps were required, and at 10.15 a.m. we reached the goal of our ambition, the top of the Eiger, 13,045 feet in height.

Bang! Bang!! went the guns at the Wengern Alp, as a sign that our progress had been watched, and our success perceived, but we had not been on the summit a minute, and had scarcely looked round us, when the envious mist swooped up, and summarily blotted out the landscape. Still, we had been able to get a glimpse of the Lower Grindelwald Glacier at our feet, at an immense depth below, the majestic cliffs of the Schreckhorn, the sharp peak of the Ochsenhorn, and the great field of névé on the top of the cliffs, connecting the latter with the Gross Viescherhorn, which forms the head of the southern Viesch Glacier, so that we might have been worse off. There was not too much room for our large party on the summit, which is cut away sharply in every direction, except that by which it is approached, but we arranged ourselves as securely as possible, and then proceeded to howl ourselves hoarse to express our exultation, while we waited for a possible clearance of the mist. The wind had again fallen, and the temperature was agreeable,

but the clouds showed no disposition to break, so having planted our flag on the very highest point, slightly below which was a pole, left, I suppose, by Mr. Hardy's party in 1862, we gave it up as a bad job, and turned to descend at 10.30.

We worked down with great care to the point where we had left our baggage, which was reached at 11.10, and thence continued the descent of the snow-slope with an amount of precaution which, I must confess, I thought rather exaggerated. As a rule, the snow was in excellent condition, but, in places where we had found ice on the way up, the steps were sometimes damaged, and required renewing, which was done with his usual skill by Melchior, who throughout the day had Miss Walker in his particular charge. During the whole of the descent, my temper was sorely tried by Peter Schlegel, who was immediately behind me, and who, with the best intentions, at every step pulled at the rope so energetically that I had the greatest possible difficulty in getting on at all, and was several times jerked into a sitting position. Neither my objurgations, nor Almer's assurance that I was quite able to take care of myself, had the slightest effect upon him, and I was obliged to grin, or rather groan, and bear it. The passage along the face of the rocks, which had been considered so dangerous in the morning, appeared now to impress the guides less, though, in the softer state of the snow, the real risk was probably greater. Anyhow we passed without accident, and soon after halted at 12.35 for lunch. The position was a good one, Miss Walker in particular being lodged in a charming cleft, the weather had cleared again, and we, therefore, prolonged our halt till 1.15, when we broke up, and hurried down the remaining rocks, which were wet from the melting snow, and rather more slippery than during the ascent. On reaching their base, we stopped while Hans Baumann made a détour to try and rescue the unlucky sheep, which, after some trouble, and a delay of more than a quarter of an hour, he succeeded in driving down off the rocks on to the snow, along which they scampered double quick. We then descended the couloir, and at 2.15 stood at the top of the long, steep slope of snow, which stretched down to the Eiger Glacier. This was irresistibly tempting for a glissade, so away we all went, and in

a very few minutes reached the bottom of the slope which had taken nearly an hour to ascend. Hence, running over the easy rocks and smooth snow we got to the 'gazon' at 2.40, and, after a rapid walk over the pastures, amidst the firing of guns at the hotel, which was commenced as soon as we appeared in sight, at 3.10 p.m. once more arrived at the Wengern Alp, where we were received with an amount of enthusiasm and hand-shaking that was quite overpowering.

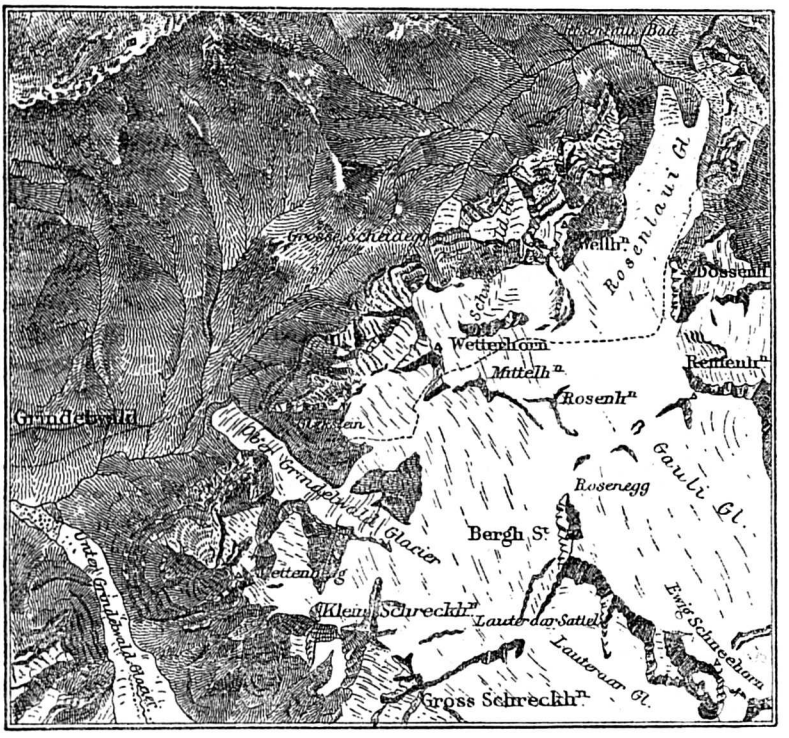
The expedition had thus occupied thirteen hours and three quarters, inclusive of halts, then an unprecedentedly short time, but succeeding travellers, later in the year, have accomplished it considerably quicker. In an unfavourable season, however, the ascent might be most *laborious*, but, in our opinion, could never be really *difficult*, unless the ascent or descent of such an ice-wall as would then cover the upper part of the mountain, is considered of itself, and of necessity, a difficult operation, which I myself do not think the case, when the party is composed of experienced men. The astonishment amongst the people, collected at the inn, at a lady having performed such an unusual feat, was immense and entertaining. One foreigner came into the Salle, and, seeing us, announced, interrogatively, that 'Mademoiselle' had gone to bed, and was profoundly amazed when we gave him to understand that 'Mademoiselle' was at that moment more anxious for dinner than for bed, though the latter would doubtless be welcome in due time. Nothing could exceed the civility and anxiety to anticipate our wants, which were displayed by the good people of the inn, and the dinner, when it appeared, was of so enticing a character, that we all made, more or less, gluttons of ourselves, and I in particular, sad to tell, was reduced to a perfectly apathetic condition, before the bowl of whipped cream, which wound-up our repast, was nearly emptied. The natural consequence was, that after dinner we were all *very* torpid, and took ourselves off early to bed.

Tuesday, 26th July.—A tremendous storm of wind and rain raged during the night, and, on getting up at 8.30 a.m., we found a dull, cheerless morning, and the mountains obscured by clouds, which momentarily threatened a down-pour. After a capital

breakfast, we started at 10.25, and had a not unpleasant, though dirty, walk to Grindelwald, where we arrived at 12.25 p.m., just as the rain began again. Whitwell had yesterday gone up to the Gleckstein cave, where it is usual to sleep before ascending the Wetterhorn, and, instead of being induced by the bad weather to come down again to the comforts of civilisation, he very pluckily remained where he was, in hopes of being able to make the ascent to-morrow. My intention was (the Schreckhorn being impracticable) to go up to the Gleckstein to-morrow, and ascend the Wetterhorn on Thursday, descending to Rosenlaui, a route almost unknown, and, I believe, only once traversed by an Englishman, viz., Mr. Chapman, many years ago. The Walkers were going to start for Geneva early to-morrow morning, and Wigram could not be tempted to join me, so that my final expedition promised to be a solitary one. Almer, however, suggested that instead of sleeping at the Gleckstein, we should make the ascent to-morrow, starting from Grindelwald itself, a brilliant idea, which so fired Horace Walker's ambition, that, to my infinite delight, he consented to accompany me. The rain poured in torrents all the afternoon, but ceased towards evening, and the weather showed signs of clearing, but nevertheless, when we went to bed at 8.30, was still very doubtful, so that we were by no means sanguine of being able to start. The night was very warm, and we kicked about in our beds, sleepless and anxious, without once closing our eyes. It was, therefore, a great relief, when, at 11 p.m., Almer called us, in order that we might look at the weather, and determine what to do. The aspect of things was the reverse of promising, but, after some discussion, we made up our minds to start, and trust that matters would improve before we came to the beginning of our difficulties. We accordingly dressed, and went down to a breakfast at the somewhat unusual hour of 11.45, the service of which was superintended by Herr Bohren himself, who had kindly sat up in order to start us on our way.

Wednesday, 27th July.—Breakfast was soon over, and at 12.15 a.m. we started, with Rudolph Boss as a second guide. Had we been going to descend the usual way, Almer would not have required a second man, but, as it was probable that

considerable difficulty would be encountered in forcing a passage down the Rosenlaui Glacier, he thought it advisable that the party should be reinforced. The night was very dark, and the weather had certainly not improved since we were called, so that we tramped along the path to the Scheideck in a rather



THE WETTERHÖRNER

disconsolate frame of mind, and with dire forebodings that our advance would come to an untimely end at the bottom of the mountain, instead of the top. The heavy rain had converted the path either into a running stream or a swamp, and the lantern, which Almer carried, turned out very useful in helping us to pick our way through the filth, which at the close of the day we should have utterly disregarded. Our progress was

entirely without incident, and the ever varying appearance of the weather was almost our sole topic of conversation, save when some yelping cur rushed out from the chalets on our route, to make hostile demonstrations against the passers by at such an unwonted hour, thereby drawing down maledictions on his head.

Shortly after passing the chalet near the foot of the upper glacier, we turned off to the right, abandoning the path, and struck across the grass slopes towards the base of the mountain. These rapidly became steeper, and were mingled with patches of rock, where the footing was none too good, and where, without Almer's faultless local knowledge, we must have been brought to a full stop. After keeping for some little distance towards the left in the direction of the Scheideck, we turned to the right, and, having cut across a broad, steep slope of hard avalanche snow, got fairly on to the rocks at 2.15. The footing at every step became more difficult, and as, in addition to the natural blackness of the night, we were now enveloped in a dense fog, the lantern served us but little, and we were obliged to advance with the greatest caution. As worse walking lay before us, Almer thought it prudent that the rope should be put on, so that, in the event of a false step on the part of any one, the luckless individual would have some chance of escaping the fate which would otherwise inevitably await him. A short halt was accordingly made for this purpose, and we then commenced an operation which is unique in my experience.[5] The passage of the 'Enge,' as this narrow goat-track, worn along the side of the cliffs, is called, cannot at the best of times and in broad daylight be particularly easy,—what it was in pitchy darkness, and after heavy rain, which had made both the rocks and tufts of grass, which were generally the sole support for the foot, extra slippery, may, perhaps, be imagined. To see where the foot had to be placed was impossible, but fortunately there was usually more or less to hold on by, either a knob of rock or a shrub, clinging to which, we fished with our feet, until the required ledge or hole was found. We could not, of course, see what lay before us, and, as a general rule, the wall along which we were climbing seemed to sink into vacancy, but Almer

always let us know what he considered the worst places, by his emphatic admonition not to let go with our hands until one foot, at least, was tolerably secure. Looking back, I am always at a loss to conceive how we managed to pass these places without accident, and believe that the risk was really greater than we imagined at the time, as I can scarcely fancy that the rope would have afforded any real security in the event of a slip. Of one thing I am sure: that few guides in the Alps, however familiar they might be with the ground, would have consented to make this passage in the dark. Shortly after turning the sharp angle of the mountain above the upper glacier, a stone avalanche had destroyed the track, such as it was, and we had to descend slightly and ascend again in order to hit it afresh, losing some time in the operation. Thenceforward, however, the walking was easier, and, as daylight was coming on, we were able to quicken our pace, which Almer gradually increased, until, in spite of our good condition, we were streaming with perspiration, and strongly inclined to put the drag on. The weather, too, showed signs of improvement, and the fog lifted sufficiently to show us the shattered stream of the glacier below us on our right, and the cliffs of the Mettenberg beyond, but the Schreckhorn and the upper ice-fall of the glacier were still veiled. Our route lay generally over slopes of rough herbage and shale, but we came occasionally to places where the cliff went straight down for hundreds of feet, and the only means of passing were some slight notches, chipped in the face of the stone, just like the passage of Les Ponts, on the Chamouni Mer de Glace. Of course, these places would present no difficulty to any one but the merest novice, but I must confess that I found it hard to believe Almer's statement, that sheep were in the habit of passing without assistance, and very rarely came to grief during the operation. Boss was sent ahead to the Gleckstein to prepare some hot wine-and-water, the thoughts of which consoled us during our labours, but it was by no means clear to the inexperienced eye, how we were ever to get to that haven of rest, which we knew to be situated high up above the apparently inaccessible cliffs, beneath which we were passing. The mystery, however, was soon solved by the opening out of a

narrow ravine, which, though steep and stony, stretched invitingly upwards in the required direction. Turning our backs, accordingly, upon the glacier, we committed ourselves to the ascent of this opportune gully, which was quite free from difficulty, and led us in due course on to a broad expanse of comparatively open ground, above the precipices we had been so long skirting.

At 5.0 we came to the hotel of the district, the Gleckstein cave,[6] formed by two overhanging rocks that have fallen together, in the very centre of this upland plain. The guides have hermetically sealed every chink and opening, except in front, facing the Schreckhorn, where a hole has been left just big enough to admit a human body. Walker and I wriggled through this, and found ourselves in a tolerably commodious cave, thickly lined with hay, and, considering the situation, offering by no means uncomfortable quarters. The *impedimenta* of Whitwell's party were lying about, but 'the birds had flown,' and we soon caught sight of them high up the mountain. The mists had hitherto clung obstinately to the higher peaks, but they now began rolling away, and disclosed to our astonished gaze the superb upper ice-fall of the glacier, backed by the grand crags of the Schreckhorn, whose shaggy sides were white with fresh snow. I do not remember ever to have seen a more gorgeous spectacle than the gradual unveiling of this magnificent mountain, which, imposing as it is from all points, is from nowhere visible to greater advantage than from the Gleckstein, whence it displays itself as one of the most massive and inaccessible-looking peaks in the Alps. As we sat, looking about east, the Berglistock, the ridge connecting it with the Schreckhorn (over which goes the pass of the Lauteraarjoch to the Grimsel), and that great peak itself, were in front of us, while on our right, at a great depth below, was the lower portion of the upper Grindelwald Glacier, and, beyond it, the bold point of the Little Schreckhorn, and the Mettenberg. Behind us towered the naked crags of the Wetterhorn itself, and on our left was the long and precipitous ridge which circles round from that summit to the Berglistock, and out of which rise the other two peaks which constitute the group of the Wetterhörner,

viz., the Mittelhorn and Rosenhorn. Right along the base of this ridge lies an almost level strip of glacier which terminates on the edge of the Gleckstein plateau, but at its eastern extremity, under the Berglistock, merges in the upper snow-fields of the Grindelwald Glacier, above the worst part of the ice-fall, which can thus be circumvented without serious difficulty.

The hot wine-and-water was most comforting, and combined with the assurance of a brilliant day to elevate our spirits considerably, so that at 5.40 we started off again in a state of profound contentment, and steered towards the rocks of the Wetterhorn, which now rose like a wall between us and the valley of Grindelwald. The ground was steep and stony, although considerable patches of poor grass were not wanting, but we got over it rapidly, and at 6.15 reached the edge of the strip of glacier before mentioned, where we were greeted by the footsteps of the party in advance. We had not been looking about us very much, and now, chancing to look round, were electrified by the vision of the wonderfully sharp spear of the Eiger, standing all by itself, and soaring defiantly into the cloudless blue sky. I have rarely seen anything more beautiful, and it was with proud satisfaction we reflected that, only two days before, we had stood upon that lofty pinnacle, which now turned towards us its most inaccessible side. Shortly afterwards, the higher, but, from here, scarcely so striking, peak of the Mönch came into view, and then, as we gradually topped the long promontory of the Mettenberg, the great wall of the Grindelwald Viescherhörner, which, circling round from the Mönch to the Finsteraarhorn, forms the boundary between Cantons Berne and Valais. The Gross Viescherhorn, or highest peak of the group, rises out of this wall, but the most considerable of the other peaks form a long ridge, which juts out to the south, and separates the Trugberg Glacier from the névé of the Walliser Viescher Glacier. At the southern end of this ridge, immediately above the Grünhorn-lücke, is the Gross Grünhorn, the second summit of the range, only three feet lower than the Viescherhorn. From our present position, its appearance was most attractive, more so, indeed, than that of the nearer and higher point, and I cannot too strongly recommend it to the attention of climbers in search of novelty, feeling

sure that its ascent would well repay the labour,* while it would be by no means a particularly easy task.[7]

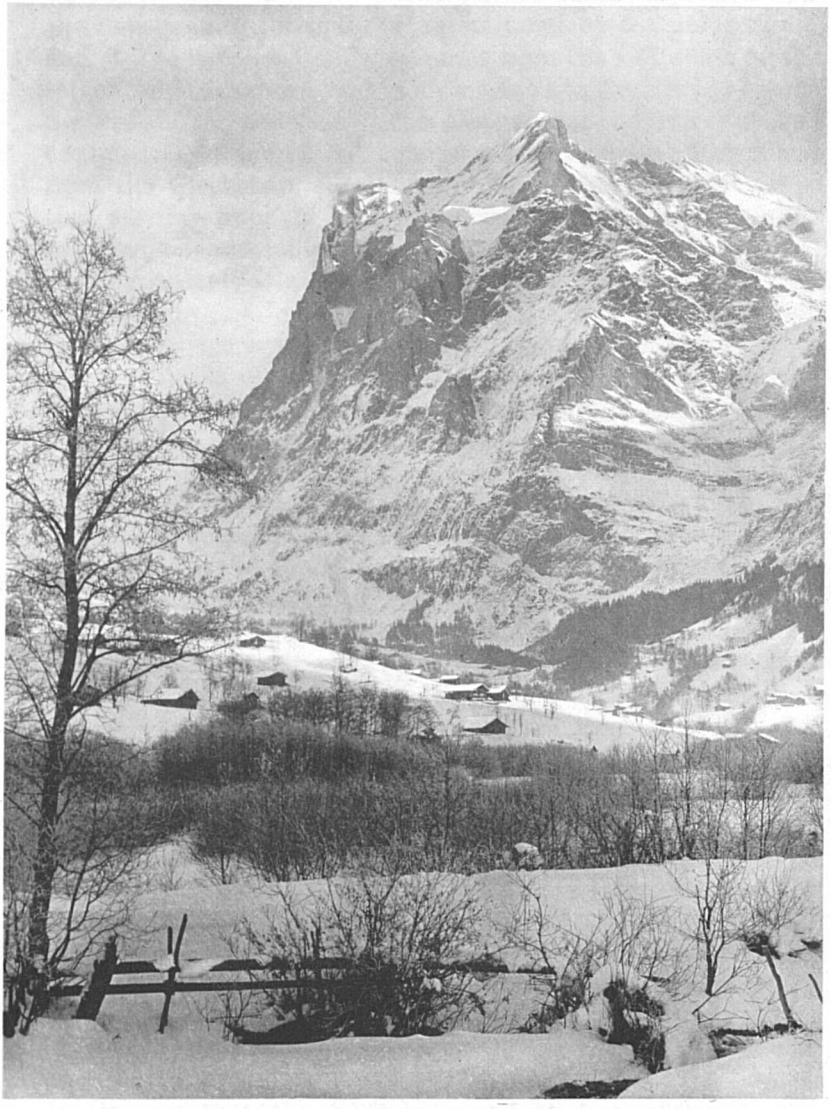
The glacier was very smooth and easy, and we were helped a little by the footsteps of the other party, though not to the degree we had expected, in consequence of their having been made very short, so much so, that we were at a loss to understand how Whitwell had managed to accommodate his legs to them. We steered tolerably straight across, towards the wall of rocks running from the Wetterhorn to the Rosenhorn,[8] and at 6.50 struck them at a point considerably to the left of (*i.e.*, nearer to the Wetterhorn than) the Col between that peak and the Mittelhorn, for which we had to make. We therefore turned our backs on the Wetterhorn, and commenced climbing along the face of the rocks in the direction of the Berglistock,[9] the glacier we had quitted being on our right below us. The rocks for some distance presented no considerable difficulty, being neither very steep nor very rotten, and were varied by large patches of snow, which, at so early an hour in the morning, was in good condition, and safe to traverse, but, in the afternoon, when softened by the sun, would require a certain amount of care to prevent it slipping away. But, as we advanced, the rocks became steeper and more shaly, and were in many places glazed with ice, caused by the freezing at night of the water which had dripped down during the day from the snow above, so that the footing was very insecure, and, after a short time, the rope, which had been laid aside before reaching the Gleckstein, was again put on. After passing the base of a broad and steep snow couloir, which stretched upwards to the crest of the ridge, we got on to the rocky rib between it and a precisely similar couloir further on, and then commenced climbing in earnest towards the Col. At first there was no particular difficulty except what was caused by the shattered and insecure state of the rocks, and the general steepness of the ascent, but this agreeable state of things did not last long, and we were soon engaged in a very pretty piece of scrambling. This part of the route is described in Mr. Ball's *Guide to the Central Alps*, as a 'steep, but not difficult,

* The Gross Grünhorn was ascended in 1865 from the Trugberg Glacier by Herr Von Fellenberg without much difficulty.

slope of rocks.' I can only say that any one, venturing on it, relying upon the accuracy of this description, would be considerably astonished. This so-called slope is an exceedingly narrow edge of splintered rock, falling precipitously, on either hand, to the snow couloirs before mentioned, and, as regards difficulty, I thought at the time, and still think, that some parts of the climb were as awkward as anything I have ever done. Walker, I believe, was of the same opinion as myself, and several of my friends, first-rate mountaineers, have been similarly impressed. We kept sometimes on one side of the ridge, sometimes on the other, as seemed preferable, but the footing was always of the most precarious character, a marked peculiarity being, that the very narrow ledges to which we were obliged to trust, sloped outwards, instead of, as usual, inwards, towards the face of the cliff, and the support given was, therefore, particularly slight. Nor did the hand-hold compensate for these deficiencies, for the very top of the ridge was so rotten, that but few of the rocky splinters were thoroughly trustworthy, and all were so sharp and jagged that it was painful to grasp them, and, as it was, we got our hands more mangled in the space of an hour, than during the previous six weeks. Two places were especially unpleasant. Once the rocks on either side were impracticable, and we had to pass along the actual crest of the ridge. This, however, was so narrow, and composed of stones in such an uncertain state of equilibrium, that the idea of walking upright across it was rather alarming. I, therefore, preferred straddling it, and so, with Almer's assistance, worked myself over, but Walker scorned such a proceeding, and managed to get over on his feet, much to my admiration. On another occasion we had to creep along the side of the cliffs, standing literally upon nothing, or, at least, upon mere points, which just held the toes of our boots. We were, however, able to pass our arms over the ridge, and so support ourselves, the danger, therefore, being more apparent than real, but, to a nervous person, the position would have been a trying one. Almer here encouraged us with the assurance that we were passing the worst bit, and he was right, for shortly afterwards matters improved, the rocks became less steep, and the ridge less narrow, and, finally, after two hours' rather excit-

ing work, we landed, at 8.55, at a point slightly above the actual snow Col, between the Wetterhorn and the rather higher summit of the Mittelhorn.

On our left a steep, but apparently not very lofty, curtain of snow ran up to the former peak, while, on our right, more gentle slopes afforded an easy route to the summit of the Mittelhorn, which, however, stands further back from the Col than its neighbour. In front, a gentle slope of névé stretched down to the head of the Schwarzwald Glacier, which is cut off from the Glacier of Rosenlaui by a well-marked, though not very lofty, ridge, connecting the Wellhorn with the Mittelhorn. On the Schwarzwald side, the névé covers the side of this ridge, which, as we afterwards saw, on the Rosenlaui side shows at most points a face of bare rock. Just as we gained the Col, Whitwell's party were descending from the peak, and, while we were feeding, they joined us. A meeting on the glaciers is always pleasant, and the present case was no exception to the rule, as both parties were in high glee at having such a glorious day for the expedition, but the time for conversation was but too short, and our friends soon started on their downward journey to Grindelwald. At 9.25 we broke up from our halting-place, and turned to attack the snow curtain, which the early explorers had found so formidable an obstacle to reaching the summit of the mountain. Mr. Wills,[10] however, found this hard ice, whereas it was now covered with snow, which, of course, considerably modified the amount of difficulty that was to be expected in the ascent, but we were scarcely prepared for the ludicrous ease with which this final stage of the journey was vanquished. The lower portion of the slope is certainly not steeper than 40°, and we got up it very fast, helped somewhat by Whitwell's steps, though not much, as they had trodden through the firm upper snow into the soft, powdery stuff underneath, in which we floundered about, so that making entirely new steps would not have occupied much more time. About half-way up, the slope thinned away in a curious manner to a narrow arête, overhanging the Schwarzwald Glacier, where a certain amount of care was necessary, but above this it widened out again considerably. This last bit was undeniably steep, probably 60°, but it was very



THE WETTERHORN.

short, and climbing precisely as if we were going up a ladder, we rapidly drew near the slight cornice which impended over the slope, passed through the gap in it, cut by our predecessors, and at 9.45 a.m., *in twenty minutes* from the Col, stood on the top of the Wetterhorn, and in an instant had the whole of north Switzerland at our feet. The ascent from Grindelwald had occupied eight hours and twenty minutes actual walking, and from the Gleckstein, three hours and thirty-five minutes,[11] so that, starting from the latter, the expedition is reduced to one of very moderate compass.

The summit is a ridge some yards in length, of which the end most distant from Grindelwald is the highest, though, seen from that place, it does not appear to be so. The snow slope on the north side is at first *not* particularly steep, but very soon curls over, and nothing else is visible until the eye encounters the pastures of the Scheideck. We had not the slightest difficulty in walking along the ridge at our ease, with our hands in our pockets, and were, indeed, a little disappointed at the total absence of any excuse for nervousness. Nothing could exceed the gorgeousness of the view, which was seen under the most favourable combination of conditions, a cloudless sky, absence of wind, and a really agreeable temperature, so that we were compensated for our comparative failure on the Eiger. It is hard to say which portion of the view was the most attractive, the broad expanse of smiling country on one side, or the grim array of the great Oberland giants on the other, but the combination of the two was perfect. Of the mountains, the Schreckhorn was beyond comparison the grandest, but the Eiger was not far behind, while the Mönch, Jungfrau, Silberhorn, and Viescherhörner were little inferior to their rivals. The Finsteraarhorn was just visible, peering over the shoulder of the Schreckhorn, but was seen to singularly little advantage; and, more remote, the Rhone Glacier, and the numerous peaks near the Gadmenthal, formed not the least interesting portion of the panorama. Of all the great Bernese peaks, the Wetterhorn is the lowest, only attaining a height of 12,149 feet, or 16 feet less than the Mittelhorn, and 42 feet more than the Rosenhorn, but it is by no means the least attractive to a

climber, and, from whatever quarter seen, is one of the most imposing of the range. On the highest point was a pole, with a small black flag attached, which we removed to the Grindelwald end of the ridge in order that it might be visible from below, and then, after I had secured a piece of the flag as a relic, we turned to descend at 10.5, after only twenty minutes' halt, which we would have gladly prolonged had time admitted.

The first few steps of the descent were awkward, in consequence of the steepness of the slope, and, when ice is encountered and not snow, the difficulty might be considerable, but, as we found it, the worst bit was soon left behind, and, almost running down the lower part of the slope, we reached the Col again at 10.20. We had had some thoughts of also ascending the peak of the Mittelhorn, which could have been reached without the slightest difficulty, but it would have occupied some time, and the snow was already showing signs of getting unpleasantly soft; so, as we were all ignorant of the difficulties likely to be found on the descent to Rosenlaui, it was thought more prudent to be content with what we had done. Almer had traversed the route we were about to follow once, about the year 1855, with Mr. Chapman, but he had no recollections on the subject, except that they had not reached Rosenlaui till 9.0 o'clock at night, a fact which did not encourage us to waste any time on extra ascents.

At 10.30 we left the Col, which, as a distinct, though, of course, circuitous, pass to Rosenlaui, is certainly worthy of a name, and should, I suggest, be called Wetter-joch,[12] and descended by a very gentle slope of snow on to the head of the Schwarzwald Glacier, which occupies an angle formed by the Wetterhorn, Mittelhorn, and Wellhorn. After the first descent, we kept up along the shoulder of the Mittelhorn, making for a depression in the ridge, connecting that peak with the Wellhorn. There were a few crevasses, and we had to cross an extensive patch of avalanche débris, caused by some hanging séracs above us, but it was all plain sailing, and we pounded steadily along through the fast-softening snow. It was extraordinary how soon the Wetterhorn assumed the remarkable pyramidal shape

it presents from the neighbourhood of Rosenlaui; already, looking back, it appeared to terminate in an acute point, which is far from being the case. On our left was the broad opening between it and the Wellhorn, through which the névé of the Schwarzwald Glacier finds an exit, prior to taking its fearful plunge towards the pastures of the Scheideck. The tourists, passing the Scheideck, who look up at the tremendous precipices down which the glacier finds a way to the lower level, not in a continuous ice stream, but in a succession of avalanches, so that there is a vast hiatus between the upper and lower glaciers, are unconscious of the very existence of the secluded reservoir, from which the supplies, that contribute so materially to their gratification, are drawn. In front of us rose the singularly fine peak of the Wellhorn, which is, I think, one of the few summits of the Alps that are utterly inaccessible. I never saw rocks so perfectly and hopelessly smooth, and it would be totally impossible for any human being to find hold for hand or foot on them, either on this side or that of the Rosenlaui Glacier. I have, indeed, seen nothing at all like them in any other part of the Alps, and mountaineers in general have much cause to be thankful that this is the case.* At 11.15 we reached the second Col under the Mittelhorn, and found ourselves looking down upon and across a most superb field of névé, surrounded by the peaks of the Dossenhorn, Renferhorn, Rosenhorn, Mittelhorn, and Wellhorn. This great plateau, which is one of the most extensive I have ever seen, feeds two glaciers, that of Rosenlaui which flows in a northerly direction between the Wellhorn and Dossenhorn, and the Gauli, that runs east from between the Dossenhorn and Rosenhorn into the Urbach Thal. There would not be the slightest difficulty in passing from the one glacier to the other at almost any point between the two latter peaks, and I believe that by far the *easiest* route for the ascent of the Wetterhorn would be over the Gauli Glacier to the plateau, across it to our position, and thence to the Wetter-joch.[14] I think that, under ordinary circumstances, the base of the peak could be reached in about six hours from the highest chalet in

* The Wellhorn was ascended in 1866 by Herr von Fellenberg, I *believe* from the direction of the Schwarzwald between Rosenlaui and the Gross Scheideck.[13]

the Urbach Thal, where the accommodation is at least as good as at the Gleckstein cave, and there is scarcely a stretch of glacier in the Alps of such extent so free from difficulty. At the point where we had struck the ridge, we looked down a low but precipitous cliff on to the névé, and a descent was impracticable, but, turning to the right towards the Mittelhorn, we soon found a slope of snow, which quickly landed us on the level surface beneath. Although we were all more or less ignorant of the ground, we had an idea that the descent of the Rosenlaui Glacier would be found least difficult along its right side under the fine, rocky peak of the Dossenhorn, and in that direction we accordingly steered.

I have rarely experienced more intense heat than during this passage of the plateau; it was positively scorching, and my face, which, as usual, was unprotected by either veil or mask, received a final 'pickling,' of most powerful character. At 11.45 we stood at the top of the great ice-fall of the glacier, which fell away from our feet towards the valley in a magnificent cascade of séracs, of great breadth and steepness, to force a passage through which would evidently be a work of no slight difficulty, and call for the exercise of all Almer's skill and discernment. At the very outset we were stopped by an immense crevasse, running almost across the glacier, without any visible bridge. To have turned it on the left would have led us exactly in the direction we did not wish to take, so we kept along it towards the Dossenhorn, and, when close under that peak, a point was found where the width of the chasm was more moderate, but the upper edge was much higher than the lower, and curled over towards it in an almost perpendicular bank of ice. Down this Almer proceeded to cut his way, while we (or rather Walker and Boss, for after a time I was cast loose, so as to give more rope) held him up; though short, it was the very steepest bit of ice-walking I ever did, and it was hard work to keep in the steps. Almer, however, got over all right, and we followed in turn, jumping from the last step, but the jump was a trifle, when *once* the last step was reached. The central portion of the glacier below us on our left seemed practicable, but we could not get at it immediately, and were obliged still

to hug the Dossenhorn, and cut down a very steep slope of hard avalanche snow, which masked the face of the rocks, and was not altogether free from signs of being occasionally raked by falling stones. We were not molested, however, by any such missiles, and, working cautiously down it, were at last able to turn to the left, and attack the séracs, which were decidedly awkward, but under the convincing blows of Almer's axe, in time saw the propriety of yielding us a way of which we quickly availed ourselves, and at 12.30 emerged on to a comparatively level bit of ice, where we halted for lunch. We were firmly persuaded that we had left our greatest difficulties behind us, and were, consequently, in high glee, expecting soon to reach the foot of the ascent to the Weitsattel pass, which was in close proximity to us, but presented a very different appearance from what it had, when I crossed it early in June last year; then it had been covered with snow, the rocks only projecting couloir fashion, while now it showed as an exceedingly ugly-looking wall of rocks, quite bare of snow. I have omitted to mention the extraordinary appearance of the three Wetterhörner, as seen from the edge of the plateau above the ice-fall; they stood up as three colossal, perfectly symmetrical pyramids of snow and rock, ranged in a line, and all apparently the same height, the real difference of 59 feet between the highest and lowest being of course, imperceptible. At 12.50 we resumed our way, and were trotting merrily down the glacier, unsuspicious of evil, when we were suddenly stopped at the edge of a broad chasm, which we had not observed until we were close upon it. There was no bridge, and we had to make a long détour to the left before we could turn it, a manœuvre which took us quite away from the apparently easy line we had hoped to follow, and forced us right into the great ice-fall that occupied the central region of the glacier. This did not look promising, but we were unwilling to retrace our steps, so pushed on for some distance with ever-increasing difficulty. One crevasse had to be leaped, and, as it was uncomfortably broad, and there was no drop, I did not much like it, but just managed to land on the further side. But at every step ultimate success in this direction became more hopeless, and, as we could not get out either on

the right or left, we at last turned from the midst of one of the grandest bits of ice scenery I have ever seen, and rapidly retreated until we were again on the other side of the broad gulf which had first disturbed the even tenour of our way. We again took refuge on the side of the Dossenhorn, which was here again masked by a slope of avalanche snow, which stretched down for some distance above, and to the right of, the glacier proper, and would evidently lead us in the desired direction. It was, however, exceedingly steep, and intersected by a series of broad 'bergschrunds,' which yawned below the path we must follow in a most alarming manner. But it was a case of Hobson's choice, so at it we went, Almer having cautioned us to hold on hard with our axes, and look out. It was, indeed, a nasty place, the snow as hard as ice, and inclined at an angle of 50°, while the crevasse below was of such a width that we could not possibly have shot over it in case of a slip, and even then there were others below to intercept us. But Almer worked away with such energy that we turned all these obstacles one after the other, and finally left them all above us, the slope stretching down below us unbroken, and then curling over, so that we could not see what was lower down. *We* thought that it was all right, but Almer had his suspicions, and determined, rather against our inclination, to strike to the left and get once again on to the glacier, which now appeared to be more practicable. The ice, was, indeed, still much broken, and it was not always easy to get along, but there was no serious difficulty, and we worked gradually down, until at 2.30 we landed on a patch of moraine near the foot of the Weitsattel Pass, and at once saw that, had we stuck to the slope of avalanche snow, we should have come to hopeless grief, as it terminated abruptly at the top of an utterly impracticable line of cliffs.

Our difficulties were not yet over, as the lower ice-fall still remained to be descended, and this, which last year I had found covered with snow and easy to ascend, was now hard ice, and most decidedly awkward, requiring a great deal of step-cutting, and the exercise of all Almer's skill. Nevertheless we did force a passage, until but a comparatively short bit intervened

between us and the moraine which would be the end of our troubles. But to get at this moraine we had to cut down a hard slope, underneath a most magnificent cavern of ice (like that usually found at the end of a glacier), perched in an extraordinary position on the top of a wall of rock some two hundred feet in height, and over the smooth, slanting roof of this, stones of all sizes, loosened from the cliffs above, came shooting on to the moraine with a velocity and force quite amazing. There was scarcely any cessation in the fire, which completely raked our line of march; but there was no other route, so we took our chance, and, scrambling down as fast as we could, fortunately got over without accident on to the moraine, down which we skedaddled, until by 3.10 we were well out of reach of any stray shots. Down the rocks of the Engelhörner, on our right, trickled innumerable rills of snow water, and round many of these, a tiny 'Iris' was playing, presenting a most fairy-like and charming appearance, to which at any other time we should have given more attention. Hurrying along the smooth snow, lying between the moraine and the rocks, we soon passed the eastern tongue of the glacier, which is separated by a pine-clad buttress from the western one, which only is seen from the valley and ordinarily visited by tourists, and shortly fell into a rough track, which zigzagged steeply through the forest, until we emerged on to the exquisite little patch of open ground, below the end of the before-mentioned western tongue, where the usual cannon firing was going on for the edification of a party, who had come up to 'see the glacier.' This is one of the most charming sites in the Alps, but we did not pause, and, crossing the wonderful gorge, in the depths of which the torrent thunders along, followed the excellent path down to Rosenlaui, where we arrived, at 3.55 p.m., in thirteen hours forty minutes actual walking from Grindelwald.

Having celebrated our triumph in a bottle of champagne, we left Rosenlaui at 4.45, and, after a rather wearisome walk, and one halt for a quarter of an hour to eat strawberries and cream, reached the top of the Scheideck at 6.40. Here we found Peter Bohren, *slightly* the worse for liquor, and a party of German gentlemen, with whom we entered into conversation

until 6.55, when we resumed our journey. It was nearly dark by the time we passed the upper glacier, but the evening was very fine, and the walk consequently pleasant enough; nevertheless, we were not sorry when, at 8.20 p.m., to the no small astonishment of the natives, we walked into the 'Adler' at Grindelwald, and thus terminated one of the most glorious excursions I ever had the pleasure of making. We had fairly earned our dinner, and so Herr Bohren seemed to think, for we were served with a specially good one, after which we took ourselves off to bed in a very sleepy state.

Thursday, 28*th July*.—We were up at 5.0 a.m., and after a hearty farewell to Almer, started in a one-horse char at 6.50 for Neuhaus, where we arrived, after a pleasant drive, at 9.20. The steamer left at 9.45, and, during the voyage to Thun, which was reached at 11.0, we discovered that our exploit of yesterday was a general topic of conversation; indeed, I understand that it was some time before the natives in general got over their astonishment at the performance. The train arrived at Berne at 12.40 p.m., and, having put up at the 'Berner-hof,' we went out to survey the town, which was new to me, and therefore most interesting. We saw everything, not forgetting the bears, made ourselves horribly ill by eating unlimited cherries, &c. and in the evening, after dinner, went up to the café of the 'Schänzli,' on an eminence just outside the town, whence we got a final view, by a tolerably good sunset, of all our old mountain friends, and where we sat for a long time devouring ices, and listening to the anything but melodious strains of a brass band.

Friday, 29*th July*.—Walker started at 8.15 a.m. to join his family at Geneva, while I lounged about till 2.5 p.m., when I left for Paris, *viâ* Biel, Neuchatel, and Pontarlier. The scenery of the Val de Travers between Neuchatel and Pontarlier is exquisitely beautiful, and the descent from the Jura into France, and the sunset over the plain was one of the finest things, in its way, I have ever seen. After quitting Dijon, there were only two persons in the carriage besides myself, so that I passed a comfortable night.

Saturday, 30*th July*.—I arrived in Paris at 5.10 a.m., and

at 6.45 started again for Dieppe, which was reached at 10.15. The boat left at 11.5, and we had a most beautiful passage, until we were within three-quarters of an hour of the English coast, when the sea got up, and most people were more or less unwell before we were landed at Newhaven, at 5.10 p.m. The Brighton train started at 7.35, and deposited me at that place at 8.40 p.m., thus terminating the most successful and enjoyable of all my Alpine campaigns.

NOTES TO CHAPTER XV

[1] See note 1 to chapter xiv.

[2] Chapter xx. gives an account of a very interesting later ascent of the Mönch in which Moore took part.

[3] The name of the first climber of the Eiger stands as *Harrington* in Moore's Journal originally, as well as in Studer and other accounts. Later on, however, it was found that this should have been *Barrington*, and a full account of this important but half-forgotten ascent (in which Almer and Bohren were the guides), was published in the *Alpine Journal*, vol. xi. p. 172. The climber was Mr. Charles Barrington, who seems to have proved himself a splendid cragsman. The route taken appears to have kept very close to the Rothstock ridge, and to have presented much more difficulty, in the way of rock climbing, than that subsequently followed.

[4] The two Baumanns were with Dr. Porges in 1861, so that three of the six guides had made the ascent once before. Some account of these three previous ascents are given in Studer, *Eis und Schnee*, vol. i. p. 196. A substantially new route up the Eiger does not seem to have been discovered until 1871, when Mr. Coolidge and Miss Brevoort, with the Almers, ascended close to the southern rocks of the Klein Eiger, on the north bank of the Eiger Glacier, and then by the snow ridge between the western and southern faces of the mountain. (See *Alpine Journal*, vol. v. p. 276, etc.) The ascent by the southern arête (that is, from the *Eiger Joch*) was first accomplished by Mr. G. E Foster in 1874. (See *Alpine Journal*, vol. viii. p. 203.) Many attempts have been made to climb the mountain by the north-east arête—the beautiful Mittellegi ridge—but so far they have been unsuccessful. In 1885, however, Herr Kuffner (of the Austrian Alpine Club), with Alexander Burgener and J. M. Biener, after sleeping at the Eigerhöhle, climbed the ridge from the south side and traversed it (not without great difficulties) to the foot of the final and unclimbable cliffs in which the ridge ends. After carefully examining these the party descended, and two days later climbed the Eiger by the usual route, and safely made the very difficult *descent* of the cliffs on to the Mittellegi ridge by the help of something like 200 metres of rope, carried with them, and of a fixed rope left hanging on the last gendarme reached in the first day's expedition. This remark-

able scramble does not seem to have been repeated (Studer, new edition, vol. i. p. 310.)

[5] This passage of the *Enge* seems to have impressed Moore very greatly. In June 1870 Moore, with Horace Walker and C. C. Tucker, crossed the Lauteraar Joch from the Grimsel to Grindelwald. After spending a couple of hours at the Gleckstein, where by that time a wooden hut had been built, the party descended over a part of the route of their ascent in 1864, and Moore writes in his Journal :—'The path along the gorge through which the Grindelwald glacier pours is certainly one of the most curious in the Alps, especially after the corner known as the 'Enge' is passed, beyond which it is a mere ledge along the northern face of the Wetterhorn, where there is really scarce room to put one foot in front of the other. As we cautiously moved along, both Walker and I were lost in amazement when we remembered that in 1864 we had been led by Almer over this track in absolute darkness.'

Two years later (July 26, 27, 1872) Moore finished up the extraordinary season, described in the introduction to chapter xx., by crossing the Rosenhorn from Grindelwald to Meiringen, descending by the Gauli Glacier, this latter being the route taken on the first ascent of the peak by Dollfus and others as far back as 1844 (see note 10 below). Mr. G. E. Foster was his companion on this excursion. The night was spent at the Gleckstein hut, and the top of the Rosenhorn was reached at 8.40 a.m.

[6] This historic *gîte*, about 4000 feet above the level of Grindelwald, has, in the ordinary course of mountaineering evolution, been replaced long ago by a club-hut, and the route by the *Enge* has been 'improved' down to the capacity of the most inexperienced of tourists. Indeed the Upper Grindelwald Glacier has now receded so much that in going to the Gleckstein hut it can be easily crossed not very high up, and the long detour by the Enge altogether avoided.

[7] The Gross Grünhorn is a mountain of 13,280 feet ; but it is so shut in by its neighbours—many of them higher than itself—that it is not easily seen except from points at a considerable height up in the range. Herr von Fellenberg made an unsuccessful attempt on it in 1864, and succeeded in his second attempt in August 1865. He describes the ascent (from the side opposite to that which was in Moore's view) as mainly a snow climb. (See Studer, *Eis und Schnee*, vol. i. 191.)

[8] It will be remembered that the Wetterhorn group consists of three peaks in a ridge running nearly east and west (south-east by east). The middle of the three peaks, the Mittelhorn, is the highest (12,167 feet). The Hasle-Jungfrau, or Wetterhorn proper, is the westernmost peak, overlooking the Great Scheidegg, and dominating the Grindelwald valley. It is about twelve feet lower than the Mittelhorn. The Rosenhorn, which is only a few feet lower, is at the eastern end of the main ridge.

[9] The rocks here referred to are not really a part of the great circle running round from the Wetterhorn through the Rosenhorn to the Berglistock, but form part of a rib (see Plate XVI.) extending nearly due south from a

point in the main ridge between the Wetterhorn and the Mittelhorn. The sketch map gives an indication of this rib (below the dotted line), but its actual dimensions are proportionately much greater than are indicated by the sketch.

[10] Mr. Justice Wills's ascent of the Wetterhorn (see chapter xiv. of *Wanderings among the High Alps*) has now become historical. It was made on the 17th September 1854. Although by no means the first ascent of a 'first-class' Swiss peak by an Englishman, it was probably the first great ascent made under the influence of that wave of enthusiasm for mountain climbing which first became known to (and scoffed at by) the general English public in *Peaks, Passes, and Glaciers* (1859), but which had, two years earlier, crystallised itself in the formation of the Alpine Club, of which Sir Alfred Wills was an original member and one of the early presidents.

The first of the Wetterhorn peaks to be climbed was the Rosenhorn, which Desor, Dollfus, and two other Swiss gentlemen reached in 1844. They ascended from the side of the Urbach Thal and by the Gauli Glacier, finding the expedition to be an easy snow climb, neither rope, axe, nor ladder having been brought into requisition throughout. The descent was made by the Rosenlaui Glacier, where, however, considerable difficulties were met with, and the party crossed the Dossengrat and reached Innertkirchen finally by the Urbach Thal.

Four days later two Grindelwald guides (Joh. Jaun and Melchior Bannholzer) started for the summit of the Wetterhorn proper. The route from Grindelwald itself does not, however, seem to have looked practicable, for they started from Rosenlaui and took the right bank of the glacier under the Dossenhorn until they reached the 'Wetter Kessel,' the great snowy plateau lying to the north-east of the Rosenhorn. From this they climbed and traversed the ridge of the Wetterhörner on the northern side, from east to west, arriving finally at the Col between the Mittelhorn and the Wetterhorn, from which they ascended the peak. In the descent they apparently came south from the Col just mentioned and reached the upper 'Firn' of the Grindelwald glacier without much difficulty, and then circled round under the eastern peaks of the Wetterhörner and the Berglistock, finally reaching the Lauteraar Sattel (of which they made the first recorded crossing), and ended their expedition at the Dollfus Pavilion on the Aar Glacier.

In the next season two Swiss climbers tried the Wetterhorn from Grindelwald, and apparently reached the Col between the Mittelhorn and Wetterhorn, but did not go further.

An Englishman (Mr. Speer), with Joh. Jaun and two other guides, reached the Mittelhorn *viâ* the Lauteraar Sattel in 1845, descending to Rosenlaui, not without considerable difficulty, among the Rosenlaui Séracs.

The first 'tourists' to climb the Wetterhorn were Messrs. Agassiz, Vogt, and Bovet (*Boort* in the first edition of Studer), with Jaun, Bannholzer, and another guide. Their expedition was made in July 1845, starting from the Dollfus Pavilion, and crossing the Lauteraar Sattel, on which they slept. The snow was good, and they reached the summit (in the main by the route used by

the two guides the year before) before 10 A.M. They measured the slope of the final peak as 68°. On their return they reached the 'Firn' again by the rocks of the Mittelhorn, which gave them great difficulty. They did not arrive at the Lauteraar Sattel until the evening, but got down to the Pavilion safely for the night. (As to all these ascents, see Studer's *Eis und Schnee.*)

The Wetterhorn peaks seem to have been left alone for nearly ten years after this, the next recorded ascent being that of an Englishman (Mr. Blackwell), who, in June 1854, started from Grindelwald with five guides for the Wetterhorn, sleeping at the Gleckstein. The weather was very bad—snow and fog—but a point was reached which was believed to be the summit, and a 'Flagge' was there planted in the snow. This flag was seen afterwards on some subsidiary point near the Mittelhorn; but Justice Wills's party found a 'Flagge,' on their descent, only a few feet below the top, and believed this to be also Mr. Blackwell's (see *Wanderings*, etc., p. 302), although this does not seem to be very certain—an equipment of two blacksmith-made flags for one party sounds hardly probable!

In August of the same year a French climber (M. Pontamine), with four guides, of whom Christian Almer (who, however, was hardly yet a professional guide) was one, reached the Mittelhorn.

In September came the ascent of Mr. Justice Wills, of which mention has already been made. It was the first ascent made from Grindelwald, and the route followed was very nearly the same as Moore's, although the final rocks were attacked differently. Wills's party slept at the Gleckstein, and therefore crossed the *Enge* in the afternoon by daylight, so that they did not find it by any means so impressive as Moore did. Wills had two Chamonix guides with him, and the Grindelwald men were obviously very anxious that the credit of the first climb of their own particular peak should not belong to strangers. Two of them, therefore, followed in the steps of the party (one of them carrying a small fir-tree for a flag), and finally joined them on the Col below the peak. Hostilities were happily avoided, and the whole party climbed the peak together. The two Grindelwald men were Christian Almer and Ulrich Kaufmann. Almer seems always, and naturally, to have had a great affection for the Wetterhorn. He celebrated his golden wedding, in 1895, by an ascent of the peak, *with his wife*, he being then seventy years old and she two years older. Remarkable to say, she had never before ascended a great snow mountain. (*Alpine Journal*, vol. xviii. p. 185.)

The first lady to climb the Wetterhorn was Miss Lucy Walker, whose name occurs several times in Moore's Journal as the sister of his friend, Mr. Horace Walker (afterwards President of the Alpine Club). This climb was in June 1866.

Although several variations on the original Grindelwald route have been made, none are of much importance except that made first (but not often repeated) by Messrs. Baumann, Vernon, and G. S. Foster, in 1878. From the Gleckstein they kept to the left and crossed the main south-west ridge of the mountain on to the Hühnergutz Glacier (see Plate XVII.), which they traversed,

finally reaching the ridge which extends from the peak north-west towards the Great Scheidegg, about a quarter of an hour below the summit, and completing the climb by this ridge.

[11] The party had therefore done about 4600 feet, a great part of it not easy rock climbing, in about three and a half hours, a feat not easy to imitate!

[12] The Col remains nameless on the Siegfried map.

[13] The party started from the Schwarzwald Alp, but ascended by the Rosenlaui Glacier far up towards the Wetterkessel, climbing the mountain itself by its eastern ridge, which was found to be 'good going' once the difficulties of reaching it had been surmounted. The actual face referred to by Moore has not, of course, been climbed.

[14] The earliest ascents of the Wetterhorn peaks were made by this route. (See note [10].)

CHAPTER XVI

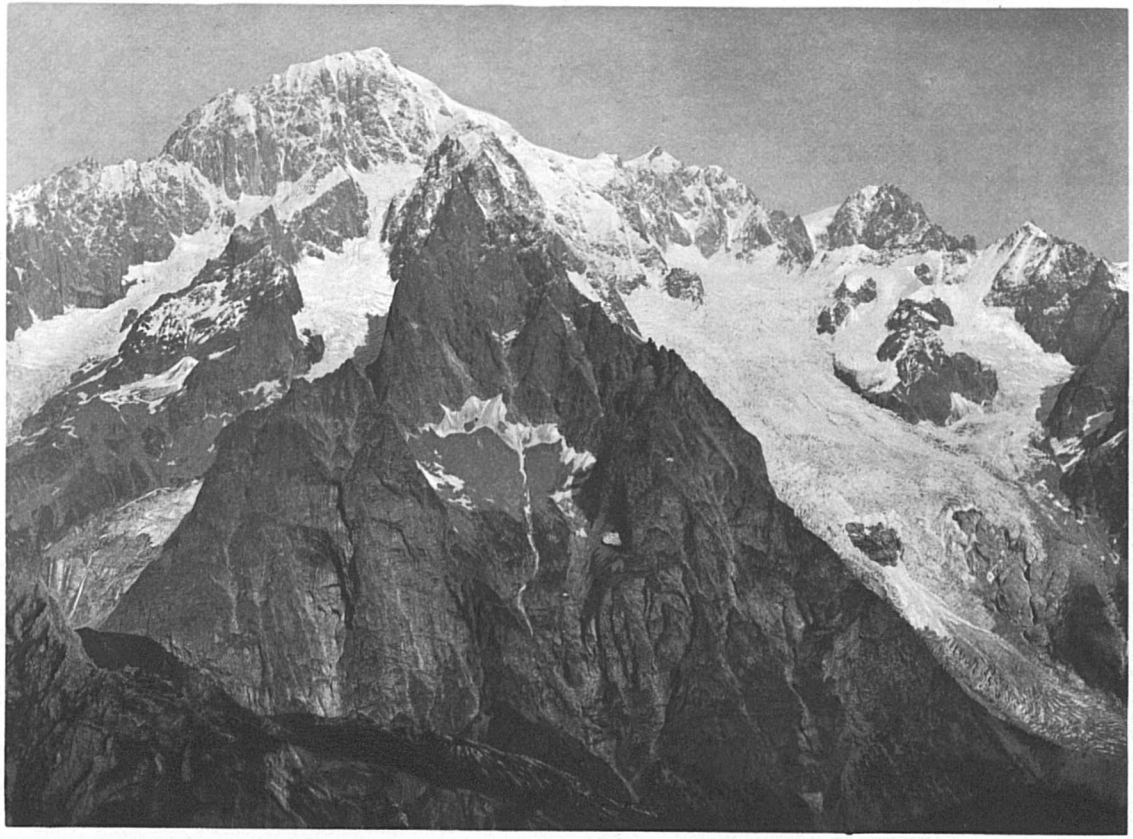
MONT BLANC BY THE BRENVA ROUTE[1]

THE attempts which have of late years been made to find routes to the summit of Mont Blanc, which should rival in popular favour the established ones from Chamouni and St. Gervais, have not been attended with very great success. It is true that the route from the Col du Géant, over the Mont Blanc de Tacul, first tried by Mr. Ramsay in 1854,[2] has been found practicable, and has been once or twice taken, but, notwithstanding the erection of a hut in a convenient position behind the Aiguille du Midi, it has not and does not seem likely to become popular. Expeditions made from the side of the Col du Miage have had even less result.[3] The Dôme du Goûter has certainly been gained from the Col, and a party has descended to the southern glacier of Miage, directly from the Dôme du Goûter; but the summit of Mont Blanc is three hours' distant from the Dôme, and no one has yet reached it starting from the Col de Miage, or is ever likely to do so, as I think Messrs. Buxton, Macdonald and Co. will agree, from the level of the southern Miage Glacier.

Probably most mountaineers have, at some time or another, dreamed of finding a practicable route from the south side of the mountain, but, as seen from the valley, the Brenva Glacier, which would naturally suggest itself as the line of march, does not look promising, and has besides a general reputation of inaccessibility, which has deterred explorers from seriously examining it. Nevertheless, in 1863, a large party, of which I had the honour to be a humble member, went to Courmayeur for the particular purpose of seeing what could be done from that quarter. We were attended by Almer, Perren and Melchior, and, with them, held a grand council of war on a little hill behind the village which commanded a view of the entire face of the mountain above the Brenva Glacier. But Perren and Melchior were dead against an attempt being made at all, the latter going so far as to call the plan 'Eine miserable Dummheit,'—'A wretched piece of folly,'—while Almer, although less despondent than his companions, declined to say that he thought success probable. As the balance of opinion was altogether unfavourable, and there were circumstances which rendered the majority of the party unwilling to risk a failure, the idea was abandoned, and we had the mortification of seeing the Italian flag, which had been prepared by the natives for our expedition, rolled up and put away, and of ourselves sinking considerably in the estimation of the men of Courmayeur.

Personally, I must confess to having entirely concurred in Melchior's opinion, and the ascent of Mont Blanc from the Brenva Glacier was summarily erased from my list of 'possibilities' for future years. Indeed, I thought no more of it, and my apathy on the subject would never have been dissipated, had it not been for something I saw, while descending from the summit with Almer, in 1864. To all but the most nervous travellers, the Mur de la Côte has long since ceased to be a bugbear. But, even in these enlightened days, there are, probably, few who have not been taught to believe that, however the steepness of the slope of the Mur above the Corridor may have been exaggerated by early writers, its face above the Brenva Glacier is absolutely precipitous. Now, upon the occasion in question, we were compelled by the state of the

snow to descend right along the edge overhanging the Italian side, and great was my surprise, on looking down on that side to see, instead of a precipice of great height, an ordinary slope of by no means excessive steepness, stretching down to a gently-inclined field of névé, lying at the depth of apparently not more than 150 feet below.[4] It did not appear to me that there would be much difficulty in descending on to it from almost any point of the Mur, or, indeed, that even a *roll* down would be attended with very serious consequences. I at once concluded that the névé upon which I was looking could be nothing but the head of the Brenva Glacier, and succeeded in persuading myself that there must be some way of reaching it from below, which had escaped our observation in 1863, when the upper region of the glacier had appeared to be separated from the Mur by some 5000 feet of steep rocks, interspersed with hanging glaciers of an 'avalanchy' character. To avoid topographical detail further on, I may as well at once explain what the real nature of the ground is. The upper part of Mont Blanc is popularly supposed to be entirely cut off from the southern valleys by a more or less vertical wall of rock, and in every map yet published, with the exception of the new French Survey, this wall is depicted as sweeping round the head of the Brenva Glacier to and beyond the Mont Maudit. The popular notion is not so very far wrong, but it so happens that, at one point, and one point only, there is a break in the continuity of the wall. From the actual summit of the mountain, a considerable glacier flows straight down into the Brenva without interruption, and it was the upper part of this which had attracted my attention, the head of the main glacier lying at least 3000 feet below. The Corridor and Mur de la Côte are on the left bank of this lateral glacier, whose right bank is formed by a great rocky spur which projects at right angles to the main mass of Mont Blanc, far into the Brenva Glacier proper. This spur was our base of operations in the expedition which I am about to describe, and entirely masks the lower part of the tributary glacier, the existence of which would not be suspected from below. What I had seen impressed me so strongly with a conviction of the practicability of reaching the Corridor from Courmayeur, that I determined to



MONT BLANC AND THE BRENVA GLACIER.

make the attempt at the first opportunity. In drawing up, therefore, with Mr. Horace Walker the plan for our campaign of 1865, it was agreed that an expedition should be made to the head of the Brenva Glacier, and Mont Blanc either ascended from it, or the reason why it could not be done definitely ascertained.

Accordingly, on the afternoon of July 12th, [1865], after an abortive expedition up the Val Grisanche, Walker and I, with Jakob Anderegg, drove from Ivrogne to Courmayeur. We were joined there on the 13th by Mr. George Mathews, and also received a fresh recruit in the person of Mr. Walker senior, who brought with him a tower of strength in the shape of Melchior Anderegg. In the course of the afternoon, we walked a little way outside the village, until we opened out a view of the side of the mountain above the glacier, and then sat ourselves down to reconnoitre. In 1863 the great difficulty had seemed to be to discover any route which should not be fatally exposed to avalanches. The same difficulty, of course, still existed; but, whereas we had then signally failed in finding any solution of it, five minutes' inspection now sufficed to reveal to us what we wanted. The rocky buttress, which has been spoken of as projecting from the side of the mountain towards the centre of the glacier, appeared to offer a route free from all risk of avalanches, and in other respects presenting a fair chance of being followed with success. There were three doubtful points in connection with it. First, whether it would be possible to get across the glacier to its base; second, whether the rocks by which we must climb to its crest would be found practicable; and third, whether, having followed the crest, and ascended the steep slopes of broken névé, in which it merged, as far as possible, we should be able to bear away to the right, so as to reach the Corridor. As regarded the first two points, the balance of opinion was decidedly favourable, and, as to the third, no judgment could be formed at all, as, from our position, nothing could be seen of what lay between the highest practicable point visible and the Corridor. Altogether, we returned to our hotel, well satisfied with what we had seen, and, having given orders for the engagement of two porters, and the pre-

paration of unlimited provisions and general necessaries, proceeded to pass the rest of the day in such mild dissipation as the Café del'Angelo gave facilities for. Indeed Horace Walker, Jakob, and I, animated by the uninterrupted series of successes by which our efforts during the previous month had been rewarded, considered the thing as good as done, and rejoiced accordingly. Mr. Walker was also fairly sanguine, and Mathews was willing enough to concur in the roseate view we took of things. Melchior alone declined to share our confidence. The fact is, he had not in the least changed the opinion which he had formed in 1863, but, seeing that upon this occasion he would stand alone, and that no remonstrance would make us abandon our purpose, he confined himself to indulging in observations of a Cassandra-like character, such as he thought calculated to check our premature exultation. His gloomy vaticinations had little effect upon us, and still less upon Jakob, who, notwithstanding his almost idolatrous respect and admiration for his cousin, ventured to deride his fears, and to chaff him generally in a free, not to say irreverent, manner.

At 10.10, on the morning of July 14th, we quitted the hospitable portals of Bertolini's Hotel, a rather imposing party of eight,—our four selves, Melchior, Jakob, and two porters, named respectively Jean Michel Lagnay and Julien Grange. Of both of these men, especially of the latter, we can speak in terms of unqualified commendation. Although compelled to carry loads of much above the average weight over very rough ground, their cheerfulness and good humour never varied, while they lost no opportunity of making themselves useful. Both, too, seemed to us to be very fair mountaineers. Following first the path to the Col de la Seigne, and then a track over the collection of débris and old moraine, overgrown with brushwood, below the end of the Brenva Glacier, we passed the chalets of La Brenva at 11.30, and, striking into the scanty forest immediately behind them, wound round the hillside above the glacier, pausing, as we went, to collect wood for our night's bivouac. Two or three awkward corners were turned by steps regularly cut in the rock, and there was always some sort of track, until after a slight descent, which was necessary

to cross a swollen torrent, when it finally disappeared. On the rocks beyond this torrent we halted for half-an-hour, and then, fairly turning our backs upon the valley, commenced the ascent of a series of stony slopes, occupying a sort of neutral ground between the ice and the base of the bounding ridge to the east. Nothing could be pleasanter than this part of our way, the ascent, though steady, being easy, and the surrounding scenery very fine. The rugged range on the other side of the glacier, comprising the Mont Péteret, and other points scarcely less striking, assumed grander proportions at every upward steep we took, while the great lower ice-fall of the glacier, which was immediately on our left, was a constant source of enjoyment, the avalanches tumbling over the Heisse Platte, or patch of rocks in the middle of the fall, with a regularity which at last became almost monotonous. The stone slopes after a time gave place to a mixture of snow, moraine, and, at last, ice, where a few steps had now and then to be cut, and care generally taken to avoid stones sent down by the moraine higher up, which was in rather an excited state. But there was no difficulty of any sort, and at 3.20, or in about four hours' actual walking from Courmayeur, we came upon a little grassy plain, lying at the base of the ridge we had been skirting, and on the south side of a sort of bay which the glacier here forms. The appearance of the place was so irresistibly tempting, that, by tacit consent, we took off our respective loads, and were soon stretched at our ease on the soft grass. So far we had been on ground familiar to our two porters, who had more than once penetrated to this spot. The excursion may be recommended to all fairly active walkers, and the return to Courmayeur may be varied by climbing over the ridge behind, and descending by the slopes on its further side.

As we lay basking in the sun, the question was discussed whether we should take up our quarters for the night where we were, or seek a resting-place further on. Our next forward movement must evidently be across the bay just mentioned, to the base of a wall of rocks, which supports the upper glacier, and divides it into two branches, the western one being very much the most extensive. If these rocks were likely to afford a fairly

eligible site for a *gîte*, it would clearly be advantageous to go on at once, in order to save time in the morning, but their appearance was not very promising, so, while we luxuriated, Melchior started off alone to examine their capabilities. At 4.10 a shout was heard, which was interpreted as a signal to advance, so the traps were gathered up, we crossed a perfectly level bit of glacier to the foot of the rocks, and, having with some difficulty effected a lodgment on them, had a severe scramble to their summit, which was gained at 5.15. Here we found a small platform, with a huge boulder perched in the middle of it, under the lee of which were divers articles belonging to Melchior, indicating that we were to pitch our camp. As the night promised to be fine, a more eligible spot could scarcely have been desired; for, although the big boulder afforded no shelter overhead, it completely protected us from the rather keen north wind which was blowing. But even had its intrinsic merits been less considerable, the view which our position commanded would have reconciled us to it. As we sat, looking south, the great upper ice-fall of the main branch of the glacier was on our right, at a depth of about a thousand feet below, backed by the cliffs and buttresses of Mont Blanc itself, the Mont Blanc de Courmayeur, and the Mont Péteret, not to mention other pinnacles of even more fantastic form. The ridge shutting in the glacier basin on the left is scarcely less imposing, but the grand view was in front, where, beyond the Val d' Aosta and over the top of the Cramont, was seen the entire range of the Graian Alps, from the Grivola and Grand Paradis to and beyond the Aiguille de la Sassière, the great snow field of the Ruitor being specially conspicuous. In point of elevation, we seemed to be rather higher than the Cramont, or about 9400 feet. Melchior, after summoning us from our first halting-place, had gone off on a *reconnaissance*, and did not make his appearance until some time after our arrival, but was at last seen bounding down the snow slope above us in a state of unusual animation. Our eager inquiries as to the result of his expedition were met by a series of sentences, which he was far too excited to make coherent, whose burden was 'ein schöner Eisfall!' 'Einen solchen Eisfall, habe ich niemals gesehen!!' When he

had a little calmed down, we elicited that the ice-fall, which lay between us and the base of the buttress by which we hoped to climb to the upper regions, was of unusual magnificence and extent, and that he very much doubted whether we should be able to cross it. He even suggested that, instead of trying to do so, it might be better, in the morning, to descend the rocks again, and endeavour to find a passage below instead of above them. But this proposition did not meet with much favour, as, not to mention that the appearance of the ice-fall lower down was not by any means such as to encourage the belief that its passage there would be found at all easy, its adoption would involve a descent, one way and another, of more than a thousand feet, and a long and difficult scramble under the cliffs on the other side of the fall, exposed to a raking fire of avalanches from the hanging glaciers above. Nothing definite was settled on the subject, but it was understood that an attempt, at least, should be made to cross up above. Meanwhile, our efforts were directed to the improvement of our night-quarters. A level floor was constructed with very little trouble, and a wall was, with more labour, built along one side of the platform, where the wind was rather inclined to make itself felt. When we took up the positions we intended severally to occupy, the general result of our labours was unanimously agreed to be a decided success, and we supped and contemplated the sunset, in our respective berths, with serene satisfaction. To an Alpine audience there is no need to rehearse the glories of an Alpine sunset, and I shall say but little of the night which followed. With such an arrangement as the Heisse Platte below, of course 'the solemn silence' was broken by avalanches innumerable, and, equally of course, we heard the inevitable dog barking down in the valley. Otherwise the night passed without incident. We were by no means cold, and altogether fairly comfortable, until the moon got round into our faces and murdered sleep most effectually.

At 1.15 the guides began to move, and at 2.45, after swallowing some hot wine and coffee mixed (to me a nauseous mixture, but approved of by the majority of the party), we started. Julien Grange volunteered to go with us to learn the way, but his companion, not seeming to see how, unaided, he was to carry all the

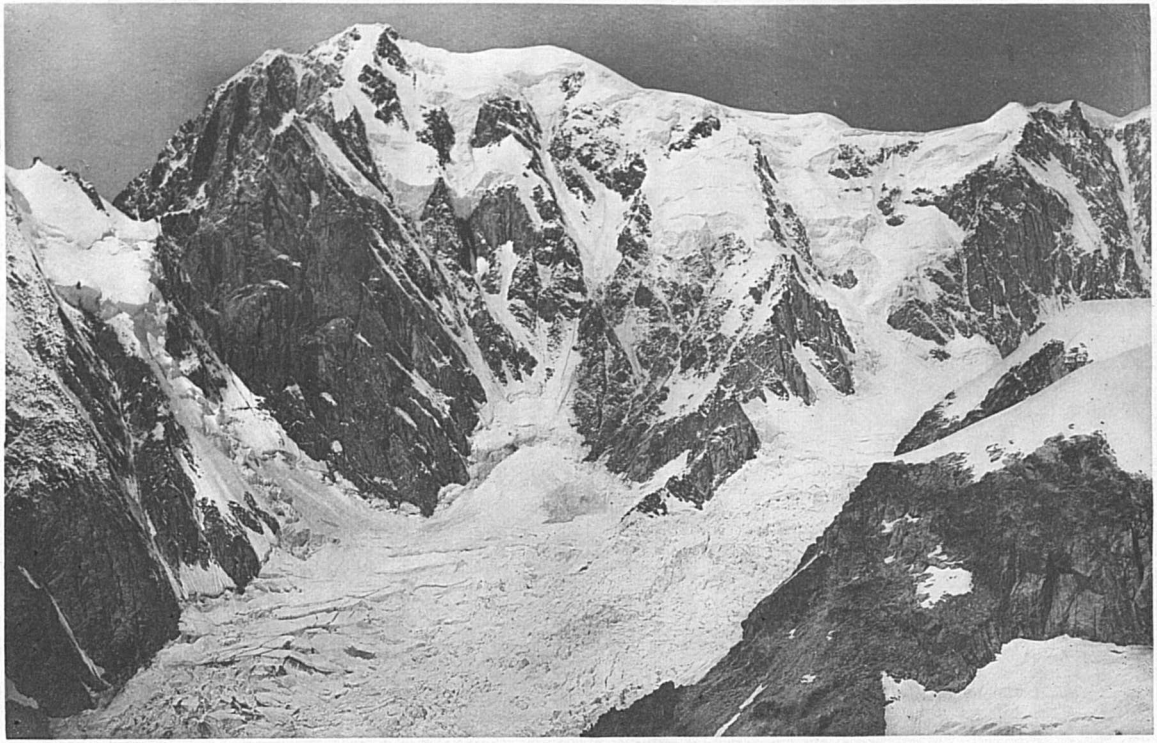
impedimenta down to the valley, our friend had to curb his desire, which Melchior afterwards cruelly suggested would not have been so ardently expressed, had he not foreseen the obstacle which would arise to its gratification. The rocks on which we had slept are connected with others higher up by a series of snow-slopes, up which we went in Melchior's steps of the previous day, keeping rather to the left. At 3.15 the rope was put on, and then, bearing still more to the left, we made our way, by 3.35, to the edge of the ice-fall, which had so much excited Melchior. Had our purpose been different, we might, by keeping a more straightforward course, have gained the upper névé of the glacier above the fall without any difficulty at all, but, when there, we should have been above the buttress we had to steer for, and quite out of our proper direction. From the head of the glacier, a pass, worth attention, might be easily made over the low ridge west of La Tour Ronde to the Glacier du Géant.[5] It was still dark when we started, but now, as our difficulties were commencing, there were signs of dawn. Gorgeous as had been the sunset, the sunrise was more gorgeous still, the gradations of colour over the eastern horizon before the appearance of the luminary being indescribably beautiful, while, as the sun rose, the great wall of precipices before us glowed again as its beams crept down them. This ice-fall certainly was worthy of Melchior's respect and admiration, for a grander and more broken one I have rarely seen, but, when we fairly attacked it, we got on with less difficulty than had been feared. Of course, there was the usual up and down sort of work, but, in spite of one or two checks, we progressed steadily, and, finding ourselves more than half-way across, were about to indulge in a crow of exultation, when we came to what looked like a full stop. We had worked ourselves into a position from which there appeared, after several trials, to be no way of extrication except by returning in our footsteps, always a disheartening proceeding. We pottered about for some time without result, and then Melchior cast off the rope, and went alone to seek out a way, leaving us in rather a blank state of mind. We shivered miserably, but were finally rejoiced by a distant cry, which evidently meant 'come on.' The ground in front did not look promising, but, following in

Melchior's steps, we gradually left the worst bit behind, and struck a broad causeway between two huge chasms which led us out of the labyrinth to where he was waiting for us.

One of the doubtful points in connection with our expedition was thus happily solved. The glacier was crossed, and all was plain sailing in front as far as the base of our buttress, which was not far above us. A smooth slope of snow between the foot of the cliffs on our left and the ice-fall offered an easy line of march, but, as we went, we had ocular evidence of the propriety of keeping out of the way of the hanging glaciers already spoken of, as a large mass of ice from one in front fell before our eyes, its débris rolling right across our path. At 5.30 we were at the base of the buttress. The rocks were approached by a steep slope of hard snow, intersected by the usual bergschrund. The latter gave us little trouble, and we were soon hard at work with the rocks. For nearly two hours we were engaged in a scramble, which, though not difficult, was sufficiently severe to be interesting, some care being required in places where snow was lying. At first we kept straight up, but later bore away to the left, ascending diagonally, until, at 7.20, when not far from the crest of the buttress, we halted for breakfast. We had risen very rapidly, and must have been at an elevation of more than 12,000 feet. Our position, therefore, commanded an extensive view in all directions—but details would be uninteresting.

The guides were in a hurry, so, cutting our halt shorter than would have been agreeable, we resumed our way at 7.55, and, after a few steps up a slope at an angle of 50°, found ourselves on the crest of the buttress, and looking down upon and across the lower part of a glacier tributary to the Brenva, beyond which towered the grand wall of Mont Maudit. We turned sharp to the left along the ridge, Jakob leading, followed by Mr. Walker, Horace Walker, Mathews, Melchior, and myself last. We had anticipated that, assuming the possibility of gaining the ridge on which we were, there would be no serious difficulty in traversing it, and so much as we could see ahead led us to hope that our anticipations would turn out correct. Before us lay a narrow, but not steep, arête of rock and snow combined, which appeared to terminate some distance in front in a sharp peak. We

advanced cautiously, keeping rather below the top of the ridge, speculating with some curiosity on what lay beyond this peak. On reaching it, the apparent peak proved not to be a peak at all, but the extremity of the narrowest and most formidable ice arête I ever saw, which extended almost on a level for an uncomfortably long distance. Looking back by the light of our subsequent success, I have always considered it a providential circumstance that, at this moment, Jakob, and not Melchior, was leading the party. In saying this, I shall not for an instant be suspected of any imputation upon Melchior's courage. But in him that virtue is combined to perfection with the equally necessary one of prudence, while he shares the objection which nearly all guides have to taking upon themselves, without discussion, responsibility in positions of doubt. Had he been in front, I believe that, on seeing the nature of the work before us, we should have halted and discussed the propriety of proceeding, and I believe further that, as the result of that discussion, our expedition would have then and there come to an end. Now in Jakob, with courage as faultless as Melchior's and physical powers even superior, the virtue of prudence is conspicuous chiefly from its absence, and, on coming to this ugly place, it never for an instant occurred to him that we might object to go on, or consider the object in view not worth the risk which must be inevitably run. He, therefore, went calmly on without so much as turning to see what we thought of it, while I do not suppose that it entered into the head of any one of us to spontaneously suggest a retreat. On most arêtes, however narrow the actual crest may be, it is generally possible to get a certain amount of support by driving the pole into the slope below on either side. But this was not the case here. We were on the top of a wall, the ice on the right falling vertically (I use the word advisedly), and on the left nearly so. On neither side was it possible to obtain the slightest hold with the alpenstock. I believe, also, that an arête of pure ice is more often encountered in description than in reality, that term being generally applied to hard snow. But here, for once, we had the genuine article—blue ice, without a speck of snow on it. The space for walking was, at first, about the breadth of the top of an ordinary wall, in



THE UPPER BRENVA GLACIER.

which Jakob cut holes for the feet. Being last in the line, I could see little of what was coming until I was close upon it, and was, therefore, considerably startled on seeing the men in front suddenly abandon the upright position, which, in spite of the insecurity of the steps, and difficulty of preserving the balance, had been hitherto maintained, and sit down *à cheval.* The ridge had narrowed to a knife edge, and for a few yards it was utterly impossible to advance in any other way. The foremost men soon stood up again, but, when I was about to follow their example, Melchior insisted emphatically on my not doing so, but remaining seated. Regular steps could no longer be cut, but Jakob, as he went along, simply sliced off the top of the ridge, making thus a slippery pathway, along which those behind crept, moving one foot carefully after the other. As for me, I worked myself along with my hands, in an attitude safer, perhaps, but considerably more uncomfortable, and, as I went, could not help occasionally speculating, with an odd feeling of amusement, as to what would be the result if any of the party should chance to slip over on either side—what the rest would do—whether throw themselves over on the other or not—and if so, what would happen then. Fortunately the occasion for the solution of this curious problem did not arise, and at 9.30 we reached the end of the arête, where it merged in the long slopes of broken névé, over which our way was next to lie. As we looked back along our perilous path, it was hard to repress a shudder, and, I think, the dominant feeling of every man was one of wonder, how the passage had been effected without accident. One good result, however, was to banish from Melchior's mind the last traces of doubt as to our ultimate success, his reply to our anxious inquiry whether he thought we should get up, being, 'We must, for we cannot go back.' In thus speaking, he, probably, said rather more than he meant, but this fact will serve to show that I have not exaggerated the difficulty we had overcome.

At 9.40 we started up the slopes of névé which rose with ominous steepness in front of us, and for the next two hours and a half the work was rather monotonous. There was no particular difficulty beyond what arose from the extreme steep-

ness of the slope, necessitating almost continuous step-cutting, the labour of which fell upon the two guides, who, naturally enough, did not consider the way easy. Sometimes there was snow enough to help us, but as often as not it was too thin and powdery to give secure footing, and I suppose that altogether about every other step had to be cut in ice. The Corridor all the time was hidden, but we knew it to lie far away to our right, and, therefore, worked generally in that direction. Two ridges of rock, running parallel to each other, but separated by a broad expanse of ice, crop out from the face of the slope. We passed underneath the first, and cut our way across to the second, and, on reaching it, ascertained our exact position. On our right below was the upper part of the lateral glacier so often mentioned, beyond which was the wall of the Mont Maudit, the depression marking the head of the Corridor being apparently at about the same level as we were. There was our goal in full view, but between us and it was a great gulf, which there was no obvious way of crossing. Beneath the Corridor the glacier falls away very rapidly. At the foot of the Mur de la Côte the difference of level is but a few feet, but, under the Mont Maudit, a precipice of some two thousand feet intervenes. It is, therefore, only practicable to pass from one to the other at the former point. Unfortunately *we* were nearly opposite the Mont Maudit,[6] and the glacier lay at a corresponding depth below us. From where we were standing it was not possible to descend on to it, nor, if it had been possible, would it have been profitable, as, just above the point we must have struck, was a great wall of ice running right across, and completely barring the way upwards. Our position was, in fact, rather critical. Immediately over our heads the slope on which we were terminated in a great mass of broken séracs, which might come down with a run at any moment. It seemed improbable that any way out of our difficulties would be found in that quarter. But where else to look? There was no use in going to the left—to the right we *could* not go—and back we *would* not go. After careful scrutiny, Melchior thought it just possible that we might find a passage through these séracs on to the higher and more level portion of the glacier to the right of them, and, there being

obviously no chance of success in any other direction, we turned towards them. The ice here was steeper and harder than it had yet been. In spite of all Melchior's care the steps were painfully insecure, and we were glad to get a grip with one hand of the rocks alongside which we passed. The risk, too, of an avalanche was considerable, and it was a relief when we were so close under the séracs that a fall from above could not well hurt us. We passed close to a curious formation—a pinnacle of ice, in shape exactly like a man's head and neck. The neck in length and thinness was sadly out of proportion to the head, and was momentarily growing thinner, so that it was a question of time how soon the two would part company. Melchior had steered with his usual discrimination, and was now attacking the séracs at the only point where they appeared at all practicable. Standing over the mouth of a crevasse, choked with débris, he endeavoured to lift himself on to its upper edge, which was about fifteen feet above. But to accomplish this seemed at first a task too great even for his agility, aided, as it was, by vigorous pushes *a tergo*. At last, by a marvellous exercise of skill and activity, he succeeded, pulled up Mr. Walker and Horace Walker, and then cast off the rope to reconnoitre, leaving them to assist Mathews, Jakob, and myself in the performance of a similar manœuvre. We were all three still below, when a yell from Melchior sent a thrill through my veins. 'What is it?' said we to Mr. Walker. A shouting communication took place between him and Melchior, and then came the answer, 'He says it is all right.' That moment was worth living for. But every man here can realise without anything further from me what were our feelings after so many hours of alternate hopes and fears. Our difficulties were indeed over. Before us was a narrow shelf of névé, stretching from the base of a perpendicular wall of ice, fifty feet high or more, to the edge of a huge crevasse, or rather dislocation, in the glacier. Over our heads was an immense projecting fringe of icicles, but we paid no heed to them, and, hurrying along as fast as was consistent with not slipping into the gulf below, emerged in a few minutes upon gently sloping snow-fields,—the same upon which, in 1864, I had looked so longingly from

the Mur de la Côte. From here we might have struck the top of the Mur, or, as I believe, the actual summit of Mont Blanc. But the adoption of either course would have involved an amount of step-cutting to which, after their already arduous labours, we should have been scarcely justified in exposing our two men. Besides which, we were all heavily laden, and the idea of depositing our burdens at the foot of the Mur was too alluring to be resisted. The intervening distance was traversed at a trot, and at 1.20 we stepped on to the head of the Corridor. The height of the Corridor, according to the French Survey, is 4301 mètres, or 14,112 feet.[7] We had, therefore, made the highest, as it is certainly the grandest, pass across the chain of Mont Blanc.[8] No one's satisfaction at our success was more profound than that of dear old Melchior, notwithstanding that his predictions had been falsified, and the expedition shown *not* to be 'eine miserable Dummheit' after all. Of the behaviour of both him and Jakob it is impossible to speak too highly. But to sing Melchior's praises is needless, while of Jakob it is enough to say that, upon this as upon many previous occasions, he had proved himself worthy of his name.

I have not much to add. We reached the summit at 3.10, and found ourselves safe at Chamouni at 10.30, after encountering the usual troubles in the dark in the forest below the Pierre Pointue. Our day's work had thus extended to nearly 20 hours, of which 17½ hours were actual walking. As regards practical utility, I fear that the Brenva route up Mont Blanc possesses few advantages over that by the Mont Blanc du Tacul. But it has one merit, which the latter lacks,—that of directness. It is also incomparably more interesting and exciting. I trust, therefore, that some one will be found sufficiently enterprising to give it another trial. The ice arête is the only *very* serious difficulty on the route, but that might very easily be found insuperable, in a high wind for instance, or after fresh snow. For this reason, he will be a rash man who attempts to descend to Courmayeur by this way, as the position of a party having got down so far, and then finding it impossible to get any further, would be, to say the least, unpleasant.

NOTES TO CHAPTER XVI

[1] This chapter was included as an 'appendix' to Moore's Journal. It was originally printed in the *Alpine Journal* for December 1866, having formed a paper read at an Alpine Club Meeting in March of that year.

[2] The ascent of Mont Blanc from the Midi hut, by the Mont Blanc du Tacul and the Mont Maudit, is a very grand ice expedition, but very long, and seldom made. Indeed, for many years until lately the old Midi hut was quite useless and filled with ice.

[3] As to routes on the Miage side of Mont Blanc, see note [5] to chapter vi., and see also chapter xix., which gives Moore's account of his own ascent from this side in July 1873.

[4] See p. 148 *ante*. This point, at once the top of the Corridor and the foot of the Mur de la Côte, is now known as the Col de la Brenva. The expedition here described was the first on which it had been reached from the Italian side.

[5] This pass is now known as the *Col de la Tour Ronde*. It was first crossed in 1873 by M. and Madame Millot.

[6] Moore means here that—speaking very roughly, of course—the point on which he stood and the Mont Maudit formed the opposite ends of a great horse-shoe, at the centre, or toe, of which was the top of the Corridor, or Col de la Brenva (see sketch map opposite p. 133). The horse-shoe is filled up with the upper part of the Brenva Glacier, the level of which is a couple of thousand feet below the ends of the horse-shoe, but which rises so rapidly as to be at its upper end only a few hundred feet below the toe.

[7] There seems to have been some difficulty in determining this height. The Italian map gave it as 4400 metres, or 14,436 feet; but Imfeld and Kurz's new map of 1896, the best yet published of the Chain of Mont Blanc, marks it 4333 metres, or 14,218 feet.

[8] The Brenva route to Mont Blanc is so long, and presents under some conditions such exceptional difficulties, that it has not often been traversed. Signor Gruber reached the Col in 1881 by following the line of the main glacier and climbing the cliffs at its upper end, a route which (according to Mr. Louis Kurz) has been rendered impossible by the state of the ice in later years. Dr. Paul Güssfeldt, in *Der Montblanc*, 1894, gives a somewhat sensational account of his ascent in 1892, in which he reached the rocky spur mentioned on p. 380 by a dangerous couloir on its northern side, which was swept by a huge avalanche an hour after they had ascended it. Apart from this couloir, which was rather a danger than a difficulty, the difficulties were chiefly found higher up—as in Moore's expedition—and were due to the hardness of the ice and the intricate nature of the crevasses. A guideless ascent, which possessed considerable interest, was made in 1894 by the late Mr. Mummery, with Dr. Norman Collie and Mr. G. Hastings. It will be found described in the *Alpine Journal*, vol. xvii. p. 537. On this occasion the party had to pass a second night out, and did this at a height, apparently, of about 12,000 feet, reaching the summit of Mont Blanc at 3.18 the next afternoon. Their difficulties also were largely owing to the ice.

CHAPTER XVII

THE WINTER JOCH AND THE TIEFENMATTEN JOCH

The following description of the first crossing of two Alpine passes is taken from Moore's (unpublished) diaries. The Winter Joch, at the head of the Göschenen Valley, was traversed in 1870, with Horace Walker, the guides being Jakob Anderegg and Baumann. The Tiefenmatten Joch (west of the Dent d'Hérens, from the Zmutt Valley to Prarayen in the Valpelline) was crossed in 1871, with Mr. Foster and the same guides.

Sunday, 26th June [1870].—The clouds exhausted themselves for the time being during the night, which was succeeded by a fair morning. We had but a Sabbath day's journey before us [1]—to the Alp at the head of the Göschenen Thal which joins the valley of the Reuss at the village of the same name, three miles or so above Wasen, and about eleven miles from Amsteg. As far as the village, which we reached at 1.45, we indulged in the luxury of a carriage and pair. There the decent inn 'Rössli' provided us with luncheon, of which we partook in company with two Dutchmen who were on their way down from Andermatt, and were curious to know where we were going. Upon our

explaining that we hoped to cross the glaciers to the Grimsel, both at once burst out with 'Lieber Gott! Potztausend!! Sacramento!!!' in a style which was too much for our politeness; I never heard such genuine astonishment expressed in a more comical manner, and we laughed till we nearly cried.

We continued our way on foot up the valley at about 3.0. The Göschenen Thal is a fine broad valley, rather bare and desolate owing to sparseness of vegetation even in its lower section, but redeemed from dulness by its rock scenery, and by the view of the great glaciers at its head which meets the traveller as he penetrates deeper into it. At the distance of about one and a quarter hours from the road, a wild glen falls in on the north, up which is seen a very bold rock peak, probably the Fleckistock (11,198), which faces the Sustenhorn on the opposite side of the Wallenbühl Glacier. Above this point the main valley contracts to a savage gorge and then expands to a rough and stony plain, from which a steep ascent leads to the secluded little hamlet of Göschener Alp, 5627 feet above the sea, where we arrived at 5.45. As might be expected there is no inn, but the curé receives travellers, and to his house—a mere chalet, not much superior to its neighbours—we betook ourselves.[2] His reverence was out, but soon made his appearance, and bade us welcome, with many apologies for the shortcomings of his establishment.

Above the Alp the Göschenen Thal is prolonged in a north-westerly direction for some distance until it is closed by the Kehle Glacier, which comes down from the range of the Thierberg above the Gadmen Thal. Immediately to the south-west of the village, and in close proximity to it, is the not much smaller Winter Glacier, the outlet of the great névé basin called on the map Damma Firn, which lies at the base of the Dammastock and Rhonestock, and which is separated from the Kehle Glacier and its tributaries by a high spur thrown out to the east from the Dammastock. Both these glaciers are cut off from the Trift and Rhone Glaciers by a line of precipices which, starting from the Thierberg on the north, is prolonged in a southerly direction to and beyond the Galenstock. That peak, however, does not overlook the Göschenen Thal, the southern boundary

of which is a grand wall of rocks which diverges from the main ridge at the point marked on the map 3513 mètres (11,526 feet), which is known as the Tiefenstock, from the glacier so named, filling the angle between it and the Galenstock, and draining towards Realp on the Furka road.

It is only within the last few years that the glaciers at the head of the Göschenen Thal have attracted attention, although in size and magnificence they yield to few in the Alps, but since 1864 the passes to be made over them have been attempted with fair success. The ridge which encloses the Damma Firn on the east, from the Schneestock to the Tiefenstock, although very formidable on that side, presents comparatively gentle slopes towards the Rhone Glacier, the névé of which extends at most points to its very crest. Its elevation is remarkably uniform, nowhere under 11,000 feet, so that the peaks which rise along it, the Schneestock (11,668), Dammastock (11,911), Rhonestock (11,823), and Tiefenstock (11,526), really scarcely deserve the name, being, with the exception of the Rhonestock, which is a tower of rock with some character, mere commonplace excrescences in (as seen from the west) an undulating snow slope.

The first attempts, made in 1864, to pass from the Damma Firn to the Rhone Glacier were foredoomed to failure owing to the explorers not being aware of the necessity of striking the ridge at some point north of the Tiefenstock. First Tuckett and then Jacomb succeeded in climbing the wall to the south-east of that peak, but only to find themselves looking down on the Tiefen Glacier; afterwards Stephen, Macdonald, and Grove tried somewhere in the same direction, but failed to get up at all. The next attempts were made from the Kehle Glacier, from which more than one pass was made without serious difficulty to the lower Trift Glacier and Gadmen Thal; and at last, in 1867, Herr Hoffmann-Burckhardt, with Ulrich Lauener, crossed from the Damma Firn to the great field of névé which is the common source of the Rhone and Trift Glaciers, by a couloir south of the Dammastock.[3] But the really direct pass from the Göschenen Thal to the Rhone Glacier and Grimsel still remained to be effected. This must lie, if practicable at all, between the Rhone-

stock and Tiefenstock, and to try it was the object of our present visit to Göschenen Alp.

As to the prospects of success we had not been able to judge during our walk up the valley, for although we had from time to time had a glimpse of the wall at the head of the Damma Firn, there had been too much cloud to enable us to identify the precise point for which we should have to steer, and by the time we reached the little green plain on which the chalets and chapel are situated, the upper regions were entirely enveloped in mist. The position, looking, as it does, straight up two glacier-filled valleys, is a magnificent one, and we much regretted seeing it to so little advantage. The hamlet is occupied all the year round, and in winter must be the reverse of an eligible residence. The curé—a nice, simple, old man—seemed nevertheless quite contented with his lot; he showed us with pride the copy-books of his scholars, and declared that what with attending to them and the care of his people generally, he had but little time for relaxation, which in his case took the form of the study of logarithms. A permanent source of delight he had in a small musical box which played four airs from the *Grande Duchesse*; this he kept going continuously during the evening of our stay, and strange it sounded in such a place to hear the rollicking strains of Offenbach's burlesque. The good man was immensely taken with my aluminium telescope, and was eager to know its cost; when told, his face fell; the amount was more than equal to his annual pay!

For supper we were provided with coffee, an omelette, and the most delicious Asti wine; after which, at no very late hour, we betook ourselves to beds which, though coarse and not so long as we should have liked, were clean and comfortable.

Monday, 27th June.—At 3.0 a.m., when we left the curé's house, the weather was very doubtful, but after many fluctuations it changed finally for good, and the day turned out gloriously fine. After crossing the main stream at once, we followed a faint track along the right bank of the torrent from the Winter Glacier, and traversing a good deal of old moraine got on to the ice at 3.50. The lower portion of the glacier, below the ice-fall in which it descends from the upper snows, is smooth and level;

the ice-fall itself is split by a mass of rocks, which offer obviously the most convenient line of ascent. We traversed the ice diagonally to their base, and climbed them without any difficulty at all, after the first fifty feet, which were smooth and required care, had been passed. At 5.0 we were on their summit, with nothing between us and the ridge we had to scale but moderately steep fields of névé, crevassed to some extent, but not sufficiently so to give trouble. As seen from here, the cliffs which enclose the snow-field on the south are magnificent, very sheer and high; in fact, I have seldom seen a more striking line of precipices. The eastern barrier, with which we were particularly concerned, is much less formidable in appearance, though by no means contemptible. Between the Dammastock and Rhonestock the wall is seamed by several couloirs, stretching uninterruptedly from its crest to the névé below. One of them is very broad and conspicuous, and is, no doubt, that which was ascended by Herr Burckhardt in 1867; it is undeniably steep, and obviously a place which might very much vary in condition, and consequent difficulty, according to the season. Herr Burckhardt did not find the ascent easy, and was exposed to considerable danger from a snow cornice which raked his line of march.

Between the Rhonestock and Tiefenstock the character of the rampart is different, showing very much more rock, and less ice and snow. The mass of the Rhonestock itself is bare rock, and the couloirs to the south of it, of which four are particularly distinct, are narrow and chimney-like. The peak known as the Tiefenstock is hard to identify; indeed, although important as the point of divergence of the great eastern ridge, it is a mere tooth on the 'Grat.' As will be seen from the map (p. 12), the distance from it to the Rhonestock in a straight line is short, and the space therefore within which we had to find our pass was correspondingly contracted; so much so, that it was plain we could scarcely keep too near the Rhonestock if we wished to insure ourselves against the mistake of our predecessors, who after much toil had found themselves looking down on the Tiefen Glacier instead of on that of the Rhone.

Meanwhile our way up the glacier was easy enough. Some of the névé crevasses through which we wound were very

grand, and were not appreciated the less because they were no impediment to progress; between the walls of one of them the peak of the Sustenhorn, seen over the western boundary of the snow-field, framed itself in a singularly striking way, with a background of sky of the deepest blue, and formed one of the most perfect high Alpine pictures that can be imagined.

As we drew near the wall we had to climb, our hopes of an easy triumph grew stronger; although we were looking at the rocks *en face*—a point of view from which steepness is usually exaggerated—they did not appear either higher or steeper than those of the Strahleck, and it really seemed that, once over the bergschrund which ran along their base, less than a hour should take us up. Of the four couloirs which offered a choice of route, the one nearest to the great mass of the Rhonestock seemed at first the preferable, but closer inspection led Jakob and Baumann to agree in selecting the next one to the south. To us there seemed little difference, but the one chosen had this in its favour, that it led direct to what looked like the lowest point in the ridge.

At 8.0 exactly, after a halt of twenty minutes on the way, we were at the lower edge of the bergschrund. This at most points was a formidable obstacle, but, where we had struck it, was nearly choked by avalanche snow, which afforded us a rather unsafe bridge, or, more strictly, ladder, across from the lower to the upper lip. The slope above was deeply scored by a channel, also crossed by avalanches, into which our ladder naturally led us; it was not a place to linger in, as signs of falling stones were plentiful, and the sun had for some time been full on the rocks above, so as soon as possible we got out of it, on our proper left, and began kicking steps up the good snow by which the lower part of the couloir was lined on that side. At first all went well, but the snow gradually became thinner, and the couloir steeper, until at last every step had to be cut in ice up something like an absolute wall. Jakob led; I followed him, with Walker behind me, and Baumann bringing up the rear. I never remember seeing our leader—ordinarily the most composed of men in any situation—so uneasy; the fact was that the angle was so great he found it scarcely possible to

cut steps at all, and every foot of height was gained at imminent risk of an upset, which would have sent the whole party either into the bergschrund, or over it in a very dilapidated state.

We were on the south side of the couloir, close to the rocks on to which we would gladly have got, had it been feasible to do so. But it was not, nor could they at this point have been climbed, as they formed a ridge which had exactly the appearance of being composed of cyclopean paving-stones tilted up on end, one above the other. As we rose, the centre of the extremely narrow couloir became more and more impracticable, and we were finally driven close under the rocks, where the ice formed a sort of edge with a narrow gap between it and them; along this edge, on which was a little snow, we were able to creep, cutting steps occasionally. I cannot call to mind having ever been in a position of such palpable insecurity, or one more trying to the nerves. Every movement of Jakob was watched with the deepest anxiety, and our emotions can be imagined when, in passing from one step to another, he tottered and seemed to be falling right upon us. A subdued cry escaped simultaneously from Walker and myself, of which the result was that we all but swallowed the small pebbles which, as usual, we were carrying in our mouths as a palliative of thirst; they certainly went as far down our throats as was consistent with our ability to cough them up again. The alarm, luckily, was a false one; our gallant leader had not really lost his footing, but though at the moment he responded with a cheerful 'Ja! gewiss!' to our 'Geben Sie Acht, Jakob!' as though nothing had happened, he admitted on a later day, when we were talking over the expedition, that for an instant he had thought himself, and us, gone.

Moving with the greatest caution we slowly ascended to a point where the rocks were accessible and practicable when reached. Our difficulties were then over; nothing remained but a severe but straightforward climb which, at 10.50, *i.e.* in little less than three hours from the bergschrund, landed us on the wished-for ridge above the Rhone Glacier, and the Winter Joch, as we elected to call the pass, was won. The height of the couloir above the bergschrund we estimated at about

700 feet—certainly not more; it may well be that in a season of abundant snow—which that of 1870 certainly was not—its ascent might be easier; but, if not, it is, in my judgment, a place to be avoided by any one who values his neck. The curious thing is that, as already observed, it does not from below look at all formidable in comparison with many other places of the same kind which have been climbed; it was not till we were almost irrevocably committed to it that we realised its quality.

The pass itself, from a barometer reading (20″) and other indications, we calculated at about 11,400 feet in height. The view from it over the vast snow-fields which feed the Rhone Glacier was striking, but the tops of the Oberland peaks were unfortunately in cloud. Ten minutes were spent in building a stone man, and we then, in thirty minutes more, descended to the glacier by an easy slope of broken rocks, on the lowest of which half an hour was spent in anything but unwelcome repose and refreshment, prior to the onward walk to the Grimsel. The excitement of the day was over, but not the toil, as we found when at noon we resumed our way over the snow-field under a blazing sun straight overhead. The heat was overpowering, and we moved very leisurely down the glacier, steering a diagonal course for the point where it is usual to leave the ice on the right bank, which we reached at 1.45. Thence keeping up along the slopes, with many halts, of which one was utilised by Walker to bathe in a most uninviting pool still half frozen over, we struck the Nägeli's Grat above the Grimsel hospice and lake, and carefully picking a way down the steep and rough rock and grass slopes on that side, walked into the hospice at 4.40, well pleased to have solved the problem of the direct pass from the Göschenen Thal.

In July 1871 Moore and Foster crossed the Col Durand (east of the Dent Blanche), from Zinal to the Zmutt Valley and Zermatt. On the descent from the Col they were facing the Tiefenmatten Joch, and were obviously impressed with its suitability as a new route to the Valpelline. The next following paragraphs are from Moore's diary of the 9th July, the day of the Col Durand expedition, and contain also interesting reference to the Winter Joch expedition

of the year before. They are followed by the account of the crossing of the Pass on the 17th July (1871).

The view from here [Col Durand] was magnificent, as all the familiar Zermatt peaks from the Rympfischhorn round to the Matterhorn now revealed themselves, while that summit looked even more imposing and inaccessible than from the actual Col. To us, however, perhaps the greatest object of interest was the Tiefenmatten Glacier immediately at our feet, over which we hoped shortly to make a route from Zermatt to Prarayen, which should be an alternative to the Col de Valpelline.[4]

I do not wish to say anything disrespectful of that pass, which is indeed one of the most useful ever made in the Alps. It traverses fine scenery, and may be crossed with decent guides in almost any weather. But there are three points in which it fails to come up to the ideal of a perfect pass. It is utterly free from difficulty from end to end, its summit is a snow-field, and it is not the direct route between the two places which it connects. A glance at the map will show that the traveller bound for the Valpelline who, on reaching the foot of the Stockje, turns to the right towards the Col d'Hérens, deliberately goes out of his way, which would naturally lie to the left, up the Tiefenmatten Glacier, and across the ridge which extends from the Dent d'Hérens to a nameless peak, marked on the map 3813 mètres, and which, for the purposes of this paper, I shall call Pic de Zardezan.[5]

That the somewhat circuitous route of the Col de Valpelline should have been originally preferred, is not perhaps very wonderful, especially as the pass was first made *from* Prarayen; but that the direct route should have been so long untried is curious, as the appearance of the Tiefenmatten Glacier is eminently stimulating, though, as a high road, it has certain obvious disqualifications, the nature of which will appear hereafter.

The Zmutt Glacier is among glaciers what the Rhone valley is among valleys—the most tiresome, and, at the same time, one of the least avoidable, with which the climber has to do. Often and often, when stumbling over its endless moraines, had I cast

longing looks at the shattered ice-falls of its principal feeder, the Tiefenmatten, and speculated whether it might be possible to cross the formidable ridge beyond them, but never until now had I looked with intent actually to try the experiment. Jakob, after looking at the place long and anxiously, expressed his opinion that a passage might be made, but that it 'would be a Winter Joch,' referring to a certain pass which we had effected in 1870 from the Göschenen Thal, and which had left on his mind an unusually vivid impression of danger and difficulty. As, however, we *had* passed the Winter Joch, and had not broken our necks on the way, his present opinion was, on the whole, encouraging, especially as he backed it up by pointing out the exact manner in which he proposed to make the assault.

Monday, 17th July.—At 1.35 a.m. Foster and I, with Jakob and Hans Baumann, set off for Prarayen in the Valpelline, which we hoped to reach by the route that Jakob and I had examined from the Ebihorn.[6]

Although the sky was cloudless, the wind was ominously warm, and in no way suggested, what proved to be the case, that we were commencing the one week of fine weather which marked the early season of 1871. The night was so intensely dark that, in spite of the aid of a candle stuck in a broken bottle, our progress as far as the chalets of Zmutt was slow, and it was 5.50 before we were seated at breakfast on a big stone near the foot of the Stockje. We were exactly opposite to the couloir leading up to the Col du Lion—so well known in connection with the Matterhorn—and, during our meal, examined it with care. If any gentleman wishes to achieve the reputation of having made the most impossible-looking pass in the Alps, let him try to climb this couloir. If he succeeds, I shall have great pleasure in congratulating him; while if he fails and comes to grief into the bargain, it will afford me equal satisfaction to observe that it served him right.[7] The Col Tournanche, further west, crossed by Mr. J. A. Hudson's party some years ago, is not a very inviting route, but with patience and step-cutting it is obviously practicable.[8] The Col du Lion is a different affair altogether, and will demand fly-like qualities not often found even in the members of our Society.

So far we had been treading the old familiar route of the Col d'Hérens; we had now to venture on new ground. The Tiefenmatten Glacier tumbles into the Zmutt in a double ice-fall between the cliffs of the Dent d'Hérens and a long spur from the Pic de Zardezan. The lower one, which first presented itself to our consideration, did not appear to be either very long or very steep, but it was extraordinarily broken, and, even in this snowy year, was evidently only passable on its right side, under the Dent d'Hérens. It unfortunately happens that this right side is the exact direction which every prudent man would desire to give as wide a berth to as possible, for the following reason: the north face of the Dent d'Hérens immediately above is for the most part precipitous rock, but at about half its height runs a broad band of broken séracs. How the ice clings to the cliffs at all is a marvel, but that portions of it are liable to, and actually do, come down with a run at varying intervals of time, is a fact which the merest novice would see at a glance. The danger was palpable, and theoretically we ought not to have incurred it; but, fortunately for the success of the majority of expeditions, people in the Alps do not allow theory to blind them to facts—at least when theory runs counter to the wishes of the moment—and we satisfied ourselves that, great as was the theoretical risk, the practical danger of a fall occurring at the precise moment of our passage was small. If it did, of course we deserved our inevitable fate; if it did not, we probably made our pass, and in so doing accomplished the desire of our hearts. The game may not have been worth the candle—at any rate, we thought it was, as hundreds have thought before under similar circumstances, and, as I hope, hundreds will think again. This elaborate argument was not, I need scarcely say, gone through at the moment. Baumann gave us very little time for anything of the sort; for, taking the rope between his teeth, as it were, he went straight at the only promising point as hard as he could go, and, accommodating us with smaller and fewer steps than I ever before saw used in such a position, in a wonderfully short space of time landed us panting and breathless at the top of the fall, on a small plateau which was covered almost from side to side with avalanche

THE TIEFENMATTEN JOCH.

débris. Over this we made our way towards the upper ice-fall, which was not an ordinary jumble of crevasses, but a series of huge dislocations in the glacier. As before, the only possible way seemed to be under the Dent d'Hérens, and there we were nearly stopped at the last moment by a monstrous chasm stretching completely across the glacier. The bridge by which we finally escaped on to the upper snow-field was of a very ticklish character, and in a day, or perhaps even a few hours, might have been found non-existent, in which case the only alternatives would have been a retreat, or a prolonged and dangerous piece of step-cutting along the face of the Dent d'Hérens.

The snow-field which we had attained is one of the most secluded recesses in the high Alps; almost environed by steep and lofty ridges, there are few points from which even a glimpse of it can be got. The view from it is limited to the peaks of the Matterhorn, Täschhorn and Dom, Gabelhorn, Rothhorn, and Weisshorn, which range themselves in a sort of rough semi-circle, and, standing up unrelieved by any extent of snow, produce a most singular effect, quite dissimilar to anything I know elsewhere. At its head an ice-wall of almost uniform height sweeps round from the Dent d'Hérens to the Pic de Zardezan, and up this we had now to seek a way. The wall was steepest near the Dent d'Hérens, and least so at its opposite end, where too it appeared to be faced with snow, while elsewhere along the line the ice glistened suspiciously blue in the sunshine, promising many a weary hour of step-cutting before the sharp crest should be reached. There was therefore no question as to the point at which it was advisable to make the attack, if possible. On that side where the ice-wall begins to merge in the rocky face of the Pic de Zardezan, the uniformity of the slope was broken by a bulging mass of séracs, the débris from which had partially choked the bergschrund below them. It would be necessary to cross the bergschrund by this débris, pass along to the left under the séracs, then turn up the slope alongside of them, until it was possible to swerve sharp to the left again, and so strike the ridge. The route was not tempting. Not only were there those threatening séracs, on which the sun

had been playing since early dawn, but the Pic de Zardezan was in a most lively condition. Already, while crossing the snow-field, we had had to look out for stones from its cliffs on our right, towards which we had steered in order to avoid the dangerous neighbourhood of the Dent d'Hérens. It was a case of Scylla and Charybdis—on the left, ice-avalanches; on the right, stones; even in the middle, the old proverb notwithstanding, no absolute safety, so contracted was the space.

I should have been sorry to attempt the ascent we had before us with inferior guides, but with men like Jakob and Baumann much might be risked. They showed no hesitation about proceeding, but only impressed upon us that, once committed to the venture, we must push on, without halt, at the top of our speed, as upon it might depend our safety. On this understanding, at 8.55, we crossed the bergschrund, and commenced the most helter-skelter, breathless ascent I ever made. The first thing was to get clear of the séracs, the danger from which was most imminent; and the pace at which Baumann led us across the deep gullies scored in the face of the slope by the falling blocks, which had so conveniently bridged the bergschrund, was a caution. Then came a race up the slope beyond, under a constant fire from the Pic de Zardezan, which was straight overhead. The inclination was greater than that of the Strahleck, and the snow, where there was snow, was deep and almost in a melting state. Where there was none there was ice, and that meant delay; so, as either condition was equally objectionable, Baumann made for a patch of crumbling rocks which looked practicable. We had scarcely reached them when a large shower of stones swept down to our right, mixed with huge masses of snow which they had started—a suggestive spectacle, though under no circumstances should we have been in danger from this particular fall. A short scramble up the wet and slippery rocks, followed by a nearly level passage above our old enemies the séracs, along the face of the slope, brought us on to the ridge at 9.45, and the Tiefenmatten Joch was a *fait accompli*. The final ascent had taken only forty-five minutes, but in those forty-five minutes had been excitement enough for three hours, which is about

the time it would have occupied us to cut steps up the wall at any other point.

The ridge, which rises to no great height above the snow-field on the south side at the base of the Dent d'Hérens and the long rugged range between that peak and the Château des Dames, was too sharp to be a pleasant resting-place, so we turned along the rocks of the Pic de Zardezan and on a convenient ledge sat down in the glorious sunshine, in a happy state of contentment with ourselves and the world in general. The view towards Zermatt was not extensive, the spurs of the Pic de Zardezan on one side, and the noble cone of the Dent d'Hérens on the other, intervening. We had had some thoughts of combining with the pass the ascent of the latter peak, the base of which was close to us; but its smooth rocks were so coated with snow, and the snow, as we have just seen, was in such a dangerous state that the idea was given up; though, under more favourable circumstances, there would have been no difficulty whatever in striking from the Col into the route followed by Mr. Hall's party in 1863.[9] Looking south, the whole chain of the Graians was clear, while in the west the eye ranged over all the Bagnes mountains to Mont Blanc, which towered up pre-eminent in size and grandeur, as usual, from all distant points of view. From a rough aneroid observation, the height of the Col comes out about 11,500 feet,[10] somewhat lower than the Col de Valpelline, another recommendation over that pass, if greater directness and the attractive features of the route, on which I have dilated, are not considered conclusively to establish its superiority. Our satisfaction at the happy result of our exertions, and the skill shown by Jakob and Baumann, was not without a tinge of melancholy, as we reflected that with the exception of the Silbersattel[11] between the Nord End and Höchste Spitze of Monte Rosa, and the still more dubious Col du Lion, we were making the last imaginable new route out of Zermatt. Some fifteen years earlier the Alpine Club had swooped down upon that dingy village, as a centre of seemingly inexhaustible novelties; in that time the district had been swept, if not garnished, and, beyond all question, from a strictly mountaineering point of view, its last state was worse than its

first. Some such sentiment as this we expressed to Jakob and Baumann, but those prosaic individuals did not see it at all, and declined to be melancholy over what they justly considered a feather in their caps, and a source of much future exultation over the Zermatt guides.[12]

For the descent we had a choice of routes. We could either traverse the whole length of the snow-field to its southern extremity, and come straight down upon Prarayen, following the line taken by Mr. Whymper in his attempt on the Dent d'Hérens; or we could descend to the lower Zardezan Glacier, either by the central and largest of the three tributaries which stream into it from the aforesaid snow-field, or by the northern and smallest of them, which was at our feet. The last alternative was decided on; and at 11.0, having first built a stone man, we started, keeping back along the ridge for a little way, and then striking sharp down to the right over steep snow-covered rocks, which required care. On reaching the level snow below them, we still kept to our right, hugging the base of the Pic de Zardezan, and, passing through an opening between it and the head of a buttress separating the central and northern tributary glaciers, descended on to the latter, and by it, without the least difficulty, to the lower Zardezan, at the precise point where the route of the Col de Valpelline falls in. It was only 12.15 and we were within two hours of Prarayen, from which place our design had been to cross the Col de Collon on the morrow to Evolena. It seemed a pity to pass the afternoon in idleness, as we must do if we descended to Prarayen, and we were not long in deciding to make a push for Evolena at once over the Col de Mont Brûlé, which crosses the ridge separating the Zardezan and Arolla Glaciers.

The glacier traversed, we commenced the climb at a point just south of a small hanging glacier, at first over grass, succeeded by easy broken rocks, but at last up tolerably sheer cliffs; but, though the way was steep enough, it could not be called difficult, as the hold was always good. From the top of the rocks, a short traverse over perfectly level névé took us to a marked breach in the ridge overlooking the Arolla Glacier, which we supposed to be the Col de Mont Brûlé, though I rather

doubt whether it was so in fact,—the Col to which that name is applied lying, I rather think, more to the north.[13] We reached it at 3.0, having halted half an hour on the way up. The height, by the barometer, came out 1650 feet above the Zardezan Glacier, or 10,395 feet above the sea, which is probably not far from the truth. As regards view, the Mont Collon opposite was a splendid object, but the great feature was in the opposite direction, where the successive tributaries of the Zardezan, which stream into it from the snow-field between the Dent d'Hérens and the Château des Dames, were seen from summit to base.

The descent on to the Arolla Glacier was short and easy. We crossed it towards the Mont Collon, the snow being good, and kept up under that mountain as far as the point where the Vuibez ice-fall comes in, then struck down and followed the smooth and level glacier to its very end. At 5.15 we reached the inn at Arolla, after a disagreeable traverse from the foot of the glacier, the ground being rough and stony and intersected by bridgeless torrents, difficult to cross in the afternoon. A quarter of an hour was spent in drinking lemonade, and we then started down the Combe d'Arolla, in favour of which, from a picturesque point of view, there is not much to be said; it is indeed a dull and desolate valley, with a stony path, and no particular features save a fine view back of the Pigne d'Arolla from some points, and a rather striking gorge where it debouches into the Val d'Hérens at the hamlet of Haudères. Glad enough were we to reach Evolena at 8.0 after a day of 18½ hours, and to find ourselves in friendly quarters at the Hotel de la Dent Blanche. Supper was long in coming; but when, after it, we were between the sheets, we felt that we had done a wise thing in having not only gained a day, but substituted good fare and the most comfortable beds to be found in any inn in Switzerland for the flinty bread and animated hay of Prarayen.

NOTES TO CHAPTER XVII

[1] The party had stopped the night at Wassen, in the Reuss Valley.

[2] There is now a decent mountain inn, small, but said to be quite comfortable, at the Göschenen Alp.

[3] I gather from Studer (*Ueber Eis und Schnee*) that Herr Hoffmann-

Burckhardt crossed the ridge from the Rhone Glacier to the Damma Firn with Lauener and v. Weissenfluh, in July 1865. This route is known as the Damma Pass, and appears to be the first crossing made of the ridge in question.

[4] The Col de Valpelline is a snow saddle (11,687 feet) between the Tête Blanche and the Tête de Valpelline. The latter is the 'nameless peak' of Moore, but has received its name on the later editions of the Siegfried map. When the first edition of the 'Matterhorn' sheet of the Siegfried Atlas was published, the point was still without a name, and—much more important—the Tiefenmatten Joch was also called the Col de Valpelline in addition to the proper Col of that name only a mile north of it.

[5] I have not thought it worth while to alter this name in the text, but it will be remembered that the peak is now marked (as above mentioned) Tête de Valpelline.

[6] The Ebihorn is an outlying point of the Hohwäng Glacier, reached on the descent from the Col Durand referred to on p. 401.

[7] The crossing of the Col du Lion by Mr. Mummery and afterwards by Dr. Güssfeldt, are referred to in the description to Plate X. The passage has only once been repeated. In August 1881 Mr. Wicks, with Ambrose Supersax and Theodor Andermatten, climbed the Tête du Lion from the Tiefenmatten Glacier by its north face,—the rocks on the south-west side of the great Couloir which leads to the Col du Lion (see *Alpine Journal*, vol. x. p. 405).

[8] The Col Tournanche (11,378 feet) between the Dent d'Hérens and the Tête du Lion, was first crossed by Hudson's party in August 1864. The upper ice slopes are of exceptional steepness (see *Alpine Journal*, vol. i. p. 433).

[9] Messrs. Hall, Grove, Macdonald, and Woodmass made the first ascent of the Dent d'Hérens from the Za-de-Zan side in August 1863, descending to Prarayen. The ascent is described in the first volume of the *Alpine Journal*, p. 208, and is accompanied by a noteworthy sketch of the Matterhorn, as seen from that side.

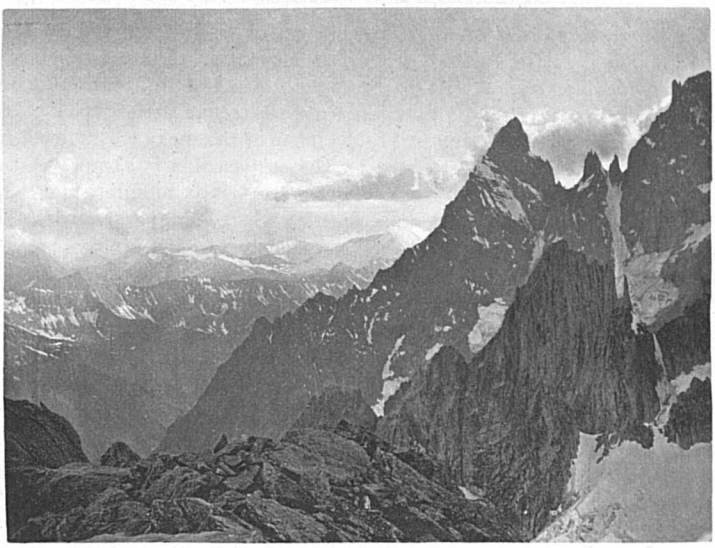
[10] The height is now given as 11,788 feet.

[11] The Silbersattel (14,732 feet) was reached as long ago as 1847 by M. Puiseux. It formed part of the route by which the earlier attempts on the highest peak of Monte Rosa were made, being quite easily reached from the Zermatt side. The descent from the Saddle to Macugnaga has never been made, and is not likely to be attempted. The Saddle has, however, at least once (August 1880), been reached from Macugnaga, the climber being Dr. Blodig (of Bregenz), with a Tyrolean guide (Studer, vol. ii., new edition, p. 99). The expedition is very dangerous and most unadvisable.

[12] The history of Zermatt as a mountaineering centre is pleasantly sketched in Mr. Whymper's *Guide to Zermatt*, and dealt with in great detail in Mr. Coolidge's *Swiss Travel and Swiss Guide-Books*, pp. 251-312.

[13] The Za-de-Zan Glacier is separated from the head of the Arolla Glacier by a ridge over which there are at least three more or less used passes. The one nearest to the Mont Brûlé (*i.e.* furthest south) is called the Col de Za-de-Zan.

Half a mile north of it is another crossing called on the map Col du Mont Brûlé, although it is the furthest from that mountain. Either of these Cols can be used in going from Arolla to Prarayen. The Col du Mont Brûlé used in the high-level route (*Peaks, Passes, and Glaciers*, Second Series, vol. i. p. 285) is much further north still, being just to the north of the rocky rib 3301 mètres, shown on the Siegfried map. Its base on the eastern side is about 1500 feet higher than that of the two southern Cols, so that it is infinitely more convenient in coming from the Col de Valpelline when going westwards. The descent from the Tiefenmatten Joch had necessarily brought Moore's party to the south of the rib just referred to, and they must either have crossed the Col du Mont Brûlé of the map, or—I think very probably—a point on the ridge to the north of it, but still far to the south of the Col used in the descent from the Col de Valpelline.



CHAPTER XVIII

THE GRANDES JORASSES

The expedition described in this chapter has been so seldom described in print (indeed, it has not very often been repeated), and constitutes so very fine a climb, that no apology is necessary for introducing it here. It is taken from Moore's Journal of 1873.

[*Thursday*, 17*th July* 1873.]—At 4.20 we arrived at Courmayeur, after a very hot drive, and at Bertolini's hotel, where we put up, were glad to meet J. S. Kennedy and Utterson Kelso. The latter we persuaded to join in our attack on the Jorasses, which Foster, though rather shaky, felt equal to attempt on the morrow. It is usual to sleep out for the mountain, but we agreed in preferring to make one very long day of it, thereby saving much trouble and expense, and diminishing the chance of a defeat by weather.

18*th July*.—At 1.5 we were off; our party, in addition to Kelso, being reinforced by Julien Grange, who was taken to show the best way on to the glacier, which was understood to be rather intricate. Foster was still far from well, but decided to

start and do his best. The night was dark and cloudy, and even on the good path up the Val Ferret, which we had to follow, a lantern was found very necessary; the weather on the whole scarcely promised well, but might turn out either way—bad or good; we, of course, hoped for the best.

At the end of two hours we turned aside from the path to the Col Ferret, and, crossing the stream, struck over Alps and through woods to the right bank of the torrent from the Glacier des Grandes Jorasses, and then climbed the stony slopes by its side until a convenient spot was found for passing to the opposite bank. On that side steep grass slopes alternated with rather smooth rocks, which last it was, as a rule, desirable to avoid, and the choice of route required a little discrimination; the proportion of rock to grass, of course, increased as we rose, and we had at last to do with a tier of smooth, rounded cliffs, which had obviously once been covered by the glacier, with the tail of which they were now about level. These are not accessible everywhere, but a rather awkward gully at one point gives access to the easier ground above. Grange's local knowledge was here useful, but without him our men would, no doubt, have found the way, as the best line of march is tolerably plain. At 5.15 we reached the point where it is necessary to abandon the slopes on the left bank of the glacier for the glacier itself, and here, at the spot where most of the few parties who have made the ascent have bivouacked, we sat down to breakfast, the rather lengthy preliminaries to the serious part of the expedition being over.

The weather had by this time declared itself definitely as 'fair,' and nothing was wanting to our prospects but a corresponding improvement in Foster's condition, which, unfortunately, did not show itself. Still, there seemed a chance that, if we did not go too fast, he might be able to struggle on, and we therefore would not hear of his turning back, which, rather than hamper us, he would have done. Grange, however, had fulfilled his mission, and, when we resumed our way at 5.40, turned his steps towards the valley.

The glacier, to which we had now to take, at this point was a perfectly smooth ice-slope, inclined at an angle of about 40°

near the bank, and this had to be cut across in order to reach the middle of the stream, where the inclination was less and there was snow. A good half-hour of step-cutting was necessary to pass this obstacle, and before we were able to turn fairly upwards. The Glacier des Grandes Jorasses is divided into two branches by a ridge of rocks, which is thrown out from the main chain at a point some way west of the western peak of the mountain. The western branch, which is the broadest, leads to the foot of a remarkable couloir, below a depression in the ridge east of the Mont Mallet, which is conspicuous from all points of view on both sides of the range, and which was reached from Chamouni in 1864 by a party headed by Mr. Wills.[1] A descent on the south side seemed to them quite impracticable, but they nevertheless christened the gap 'Col des Grandes Jorasses.' The eastern branch of the glacier, with which we were immediately concerned, is contained between the ridge aforesaid and a parallel ridge that extends towards the valley from the western or lower peak of the Jorasses itself, and in this last has its origin, plunging down in an unbroken succession of névé séracs. Formidable in appearance as is this ice-fall, its ascent in some seasons is not difficult, and Horace Walker, when he made the first successful attack on the eastern or highest peak of the mountain in 1868, actually reached the summit in four and a half hours from his bivouac.[2] How *we* were to fare was now to be seen.

Our troubles began at once, as from the first the glacier was so steep and broken that only by a very devious course was it possible to progress at all in the desired direction. We kept generally as near as might be to the ridge of rocks on our left, which, as difficulties thickened, more and more suggested itself as a positive alternative route. At last a point was reached beyond which the glacier was clearly impracticable; huge bridgeless chasms stretched completely across, and the inclination was nearly as great as that of the upper ice-fall on the Jungfrau Joch, which the place brought vividly back to my recollection. The rocks on our right, forming part of the ridge leading up to the western peak of the mountain, would have been our most direct line of march, but they did not look feasible, so at 8.55 we took

to those on the left, which proved to be granite, very steep and not too round, but on the whole not bad to climb. We ascended them till 9.25, and then called a halt, in order to give Foster a much-needed rest.

The position commanded a grand view of the whole chain of the Graians, and of the tremendous eastern face of Mont Blanc above the Brenva Glacier, which with the Walkers and Mathews I scaled in 1865[3]; its appearance, as now seen, was certainly not calculated to diminish the impression which the ascent had at the time made on my mind. The Aiguille de Peteret, too, was a wonderful object; while, in its way, the tangled maze of precipitous séracs from which we had escaped was scarcely less striking.

At 9.50 we continued our way to the top of the rocks, which were crowned by a narrow crest of snow, extending a considerable distance in front, and then merging in a slope of névé, which was connected with the ridge leading to the western peak of the Jorasses. We had, therefore, only to follow this crest, and traverse the slope aforesaid, which was at the head of the eastern glacier, to the most suitable spot for taking to the ridge. As we passed along the arête we had on either hand the two branches of the glacier, and at the head of the western commanded a good view of the great couloir leading up to the so-called Col des Grandes Jorasses; we did not examine it critically, but it looked most formidable, and not at all likely to be a link in a new pass from Courmayeur to Chamouni. The snow was in good order on the arête, and equally so on the steep slope which succeeded it; and, working gradually round the head of the glacier, we were at last close to the long-desired rocks on its left bank, which had next to be scaled. These we had struck at so high a point that their vertical height above us was not great, but the passage on to them from the snow, and the short climb on to the ridge, were *the* critical points of the expedition. The rocks were big, smooth slabs, offering little hold for hand or foot, and with just enough snow on them to destroy that little without giving any hold of its own. The men did not attempt to disguise their dislike of the place, and their warnings to 'Achtung' were emphatic and frequent; needless

to say that we moved gingerly and with every possible precaution, one at a time, until at 11.15 the ridge was gained and all risk was over.

By turning to the left along the ridge we could now have gone straight to the top of the western lower peak of the Jorasses. This was the course taken by Whymper, who made the first ascent in 1865,[4] and by George, who repeated it in 1867, upon neither of which occasions was the eastern highest peak reached; that was reserved for Walker in 1868, who, with Melchior, took the route we were now to follow. From that peak a ridge runs south similar in character, and parallel to the one we were on; the intervening distance between the two is considerable, and is filled by névé connected with the very steep curtain of ice that joins the two peaks. The practicability of this curtain and its arête is doubtful, and, so far, the highest peak has always been reached by crossing the névé basin between the two ridges, and following the eastern one to the top. The névé immediately below the western ridge is perfectly level; but, just above, is a tremendous line of ice-cliffs, so that the passage has to be made at once without further ascent. The situation during the traverse is impressive: on the left, those menacing but not really dangerous cliffs; on the right, a few yards of smooth snow; and, beyond, vacancy—a precipice practically continuous to the valley. But it is only the imagination that is affected, as the available level space between the base of the cliffs and the edge of the precipice is more than enough for safety and comfort; there is nothing to trouble the most nervous in this part of the way.

At noon exactly we got on to the eastern ridge at its lowest point, where it lost itself in the névé, and then serious work began again; not that the rocks are particularly difficult, but they are steep, the ridge is narrow, and on the right a really appalling precipice falls sheer to the Glacier de Freboulzie, so that the necessity for a firm grip and constant care is ever present to the mind. There was now, too, a good deal of snow in places, and that on rocks is always an unpleasant element. However, we climbed along steadily, gradually penetrating the dense white fog which, as we had for some time seen, clung

pertinaciously to the extreme upper part of the mountain. The rocks merged at last in a snow-slope; Jakob kicked steps up this to what we knew must be the edge of that grand wall which overhangs the glaciers on the Chamouni side, then turned sharp to the right for a few yards, and at 1.30 we were on the top of the Grandes Jorasses, 13,800 feet—the highest point of a snow cornice, in which was stuck an empty wine-bottle. This emblem of civilisation, coupled with the fact that we could go no further in any direction, was the only indication that we had really reached our goal, for view there was none—to me a great disappointment, as to look down upon the basin of the Glacier du Géant from this point which, seen from that side, looks so hopelessly unattainable, had been one of my most cherished Alpine dreams.

The ascent had taken us 12½ hours from Courmayeur and 7¾ hours from the edge of the glacier; we had, of course, been a little delayed by Foster's indisposition, but he had gone with wonderful pluck and determination, and was now beginning to feel himself again. Under the circumstances there was no object in a prolonged stay on the summit, where it was not possible to sit in comfort, so at 1.40 we turned in our steps and descended to the top of the rocks, where we sat down for a very necessary meal. While engaged in this, the fog cleared off the lower peak, of which we got a good view for the first time; it is double-headed, and connected with the highest peak by an ugly looking ridge which, for as much as we could see of it, seemed not easy to traverse.

Starting again at 2.15 we made no further halt until we left the glacier for good at 5.40, having descended in 3½ hours what had taken more than double that time to climb; considering the general character of the ground, this was quick going, and we were in consequence relieved from the necessity, which we had rather feared, of having to make the further descent to the valley in the dark. The passage from the western ridge on to the glacier was not less critical than it had been earlier, but otherwise the descent, and especially the lower glacier, which we traversed in fifty minutes from the rocks, was altogether less troublesome than I had expected to find it. At 6.5 we com-

menced the last stage of the journey, and reached the valley more or less by the morning's route, which the men had no trouble in retracing; once on the Val Ferret path, all was plain sailing, and at 8.40 we walked into Bertolini's Hotel, not sorry to arrive, but still tolerably fresh after a day of 19½ hours, which to Foster must have been a most trying one.

NOTES TO CHAPTER XVIII

[1] See *Alpine Journal*, vol. i. p. 430, and vol. ii. p. 114. The pass was first crossed in 1874 (from the Italian side) by Mr. Middlemore, with Jaun and Jos. Rey (*Alpine Journal*, vol. vii. pp. 104, 225). It was not recrossed until 1898, when Messrs. Broome and Pryor made the expedition from the Italian side, and (probably by small improvements on the original route) found the climbing excellent, 'with little or no danger.' (*Alpine Journal*, vol. xix. p. 412: the paper is accompanied by a photograph of the pass from La Saxe.)

[2] See *Alpine Journal*, vol. iv. p. 157.

[3] This is the expedition described above in chapter xvi.

[4] See *Scrambles*, chapter xvi., and *Alpine Journal*, vol. ii. p. 131.

CHAPTER XIX

MONT BLANC—THE MIAGE ROUTE

Moore's ascent of Mont Blanc by the Aiguille du Goûter in 1864—with Almer only—has been described in chapter vi. His notable ascent by the Brenva route in 1865, which was printed as an appendix to his Journal, is given in chapter xvi. The following chapter is extracted from his diary of 1873, and forms an account of the second ascent of the mountain by the Miage route, which is now perhaps the most popular of all the climbers' routes—a name which may probably (with one exception) be restricted to routes starting on the Italian side of the mountain. The party on this expedition was the same as for the Tiefenmatten Joch.

Saturday, 19*th July* [1873].—Rain fell in the night, but the morning was fair, though windy; altogether a less favourable day than yesterday for mountaineering purposes, and we congratulated ourselves upon having seized the occasion and dispensed with a bivouac. We now seriously contemplated treating a greater mountain than the Grandes Jorasses in the same somewhat cavalier fashion. The next item in our programme was an ascent of Mont Blanc from the Miage Glacier

by *the* route taken last year for the first time by J. S. Kennedy,[1] which from his account seemed likely to turn out the only really generally practicable line of ascent from the Italian side —a good deal more circuitous than that by the Brenva Glacier, but without any of the serious difficulties which make *that* route so formidable an undertaking. Kennedy bivouacked the previous night on the rocks some five hours from Courmayeur, but it seemed to me that, if the weather was favourable, a far better plan would be to make a very early start from the village and complete the ascent the same day, sleeping afterwards at the Grands Mulets should it not be possible to get to Chamouni itself, as, under propitious circumstances, I thought it might be. Foster willingly consented to this programme, though, I fancy, not very sanguine that we should carry it out in its entirety; by Jakob the idea was received with enthusiasm, and it seemed also to commend itself to the less excitable Baumann.

Meanwhile we passed a day of idleness, contenting ourselves with a short stroll in the afternoon to a point behind the village commanding a view of Mont Blanc—the same, I think, as that from which a large party of us, travellers and guides, had in 1863 studied the Brenva Glacier and voted that line of ascent impracticable. . . .

Sunday, 20*th July*—A perfectly glorious day encouraged us to hope that the weather had settled itself for a time, and the not very elaborate preparations for our expedition were set in hand, therefore, with some confidence. Mont Blanc was destined, it soon appeared, to receive attentions from another party to-morrow as well as from us. Grange had ideas of a direct ascent by the great southern face of the mountain above the glaciers of Brouillard and Fressenay, and succeeded in talking over Kelso and Girdlestone into making an attempt from that direction under his leadership. Various expeditions with the same object in view had not had much success; but they had all been rather half-hearted affairs, and Grange seemed quite clear as to the way he would go to work; nevertheless we were not tempted to change our own plan for a share in the experiment, not quite believing either in Grange's capacity, or in the

probability of an escalade of these southern cliffs without a previous thorough reconnaissance.

Church in the morning was succeeded by an afternoon of 'loafing'; dinner came in due course, and at 9.0 we lay down on our beds to rest for a couple of hours; at 11.0 our short night was over, and we rose to supervise the final arrangements, before partaking of a meal which might be regarded as a late supper or a particularly early breakfast, according to taste.

Monday, 21st July.—At twenty minutes after midnight, with every promise of brilliant weather, the two parties—whose routes lay together for some distance—bade farewell to friendly Signor Bertolini and plunged into the darkness, which was mitigated to some extent by a pair of lanterns. Kelso and Girdlestone had two Courmayeur men in addition to Grange; we also took a porter to carry the provisions as far as our first breakfast place, thus relieving our two men, for some hours, of a load which at the end of that time would, no doubt, be a good deal lightened.

For an hour and a half we followed the regular path up the Allée Blanche, on which I had supposed we should continue as far as the Lac de Combal, then taking to the right bank of the Miage Glacier; but we now diverged to the right and crossed the valley to the opposite side where a track leads to the Brouillard Alp, on the left bank of the glacier of Miage and at the foot of the slopes below that of Brouillard. This track led through woods and over old moraines, and may very probably have been the shortest way in point of distance, but I question whether we gained anything in time by preferring it, as in the darkness it was by no means easy to keep or follow. However, we jogged along, and at 3.0. reached the point where we were to part company with our friends, who turned up the stony slopes on the right in the direction of the Brouillard Glacier; before separating, it was agreed that whichever party first reached the summit should score in the snow three crosses as indication to the other of its success.

One track continued for some distance further; sometimes along the Miage moraine, which extends a long way down the valley, sometimes in a grassy dip between it and the hill-side,

in which situation we greeted the dawn, which broke most gloriously, reminding me strongly of a similar morning, eight years ago, on the Brenva Glacier, when also Mont Blanc was an object of attack. We gradually rounded the south-western spur of Mont Brouillard, and penetrated into the great ice-filled valley of the Miage Glacier, on to which we passed from the grass slopes almost imperceptibly. A tiresome traverse over stones had to be accomplished before we were on clear ice; but, at last, all was plain sailing, and, pushing straight on, we reached at 4.55 the point where we had to leave the main glacier for its most southern tributary—that called on Reilly's map 'Glacier du Mont Blanc,' which falls in a succession of tremendous ice-falls from almost the very summit of the 'Monarch of Mountains.'[2] The lower ice-fall, in which it joins the Miage, is split by a 'rognon,' or bluff of rock, and the first stage in our upward journey was, we knew, to traverse the northern of the two channels thus formed to the rocks on its right bank. We therefore halted in a line with the 'rognon' for breakfast, as a necessary preliminary to the continuous ascent we had to look forward to.

At 5.20 we dismissed the porter and commenced the work of the day, Jakob leading and Baumann bringing up the rear; the route to be followed was as new to our two men as it was to Foster and myself, but we were pretty sanguine that they would be as successful in finding the way as were Carrel and Fischer, Kennedy's guides, last year. Jakob led off up the glacier, making for the rocks on the right bank at a height of some 300 or 400 feet above the Miage; the ice was hard and steep, so that a good deal of step-cutting was necessary, and the final passage on to the rocks was rather troublesome, partly owing to crevasses, which near the bank were plentiful; partly owing to the smoothness of the lowest rocks on which a lodgment had to be made, and from which the glacier had, evidently of late years, fallen away; but once above these the way was easy, broken rocks and slopes of coarse grass alternating for some distance. It was somewhere on these slopes that Kennedy's party passed the night before the ascent, and on them a hut will no doubt, sooner or later, be erected.[3]

We climbed straight up, turning rather away from the Glacier du Mont Blanc, which poured down on our right in a grand ice-fall, and made for a point where the rocks appeared to lose themselves in the snows of a lateral tributary of that glacier. This point was reached at 7.35, when, as there was clearly an end of rock-work for the present, we put on the rope, availing ourselves of the few minutes' halt, necessary for this operation, to admire the view of my old acquaintance, the Aiguille de Trélatête,[4] across the Miage Glacier, and of the fine cirque of the Glacier du Dôme on our immediate left. It now appeared that the head of the lateral glacier, level with which we were standing, was connected with the upper part of the Glacier du Mont Blanc by a long slope of névé, broken into séracs on the right, but smooth and uninterrupted on the left. In that direction we of course turned. The slope was not particularly steep, but the snow was hard, and the axe was in constant use; the distance too to the apparent top was much greater than it looked, and it was not till 9.15 that we found ourselves at the edge of the snow-field which may be regarded as the head of the Glacier du Mont Blanc.

This is a broadish basin enclosed between the long ridge of Mont Brouillard on the south, the cliffs of Mont Blanc itself on the east, and on the north by what is little more than a broken parapet of rocks, separating it from the snows tributary to the Glacier du Dôme. Mont Blanc rose exactly opposite the spot where we were standing, a wall of rock, lofty and—as seen straight *en face*—steep, but so little formidable in appearance that in assigning four hours to its ascent, we all thought we were going far beyond what would prove to be the mark. In fact, I greatly doubt whether we really saw the summit at all; how far our estimate fell short of the truth will appear in the sequel. Meanwhile, in glorious weather, and with, as we thought, the neck of the ascent broken, we sat down for a third breakfast, dividing our attention between our immediate surroundings and the magnificent view in the south and west of the Graians and the Alps of Dauphiné, amongst which last the Ecrins and the Meije were conspicuous.

There was a slight dip from our position to the snow-field, across which we started at 9.50, making for a point immediately

under what we supposed to be the summit of Mont Blanc; at 10.20 an easy bergschrund was passed, and we set foot on the rocks. For the next three and a half hours we were engaged in a straightforward climb admitting of little description. The rocks could nowhere be called difficult, though always steep, and I do not think presented one real *mauvais pas*; they were tolerably firm, and, but for seeing one large stone flying through the air above our heads, I should have said that that form of danger was wholly absent; it is certainly not serious. But the ascent though easy was endless, and, as hour after hour passed, and the apparent top of the crags kept its distance, we began to realise that we were in for a bigger business than, at one moment, seemed likely. Nevertheless, we continued to hug the pleasing idea that the top of the rocks and the top of the mountain were practically synonymous terms, and to flatter ourselves that, after all, our four hours' estimate might not be very wide of the truth. It was, therefore, with a feeling almost akin to panic that upon emerging at 1.35 on to a small snow plateau, we looked across it to a second wall of rocks, to all seeming, equal in height to that which we had surmounted. In other words, the four hours had nearly flown, and the summit was as far off as ever!

The disappointment, as will appear, led us to take a somewhat pessimist view of the situation, and during the fifteen minutes which we were obliged to allow for rest, the Grands Mulets certainly began to fill in our minds the position which up to this moment had been held by the Hotel des Alpes at Chamouni,—the goal, that is, of our day's journey. The best line to follow on the next stage of the way was not obvious, as the rocks which enclosed the plateau in a semi-circle were uninviting at all points; eventually we selected as our base of operations a narrow couloir which seemed to extend up to the ridge which *must* be that connecting the Bosses du Dromadaire with the summit—neither of which was recognisable—and which lay rather to our left. I question whether we selected either the most direct or easiest way; certainly in the next two hours were concentrated all the difficulties of the day.

The lower part of the couloir was not practicable, so the

ascent was begun by the ridge enclosing it on the left; this was rock interspersed with knife edges of snow, and was not bad going so long as we could keep to it, but when it became necessary to descend into the couloir, as it shortly did, and complete the ascent by it, we found ourselves committed to a decidedly tough piece of work. The rocks were smooth and steep, with much snow and ice on them, and the foothold and handhold were alike bad. My disposition is always to gauge the difficulty of an ascent by thinking of the descent; now, I certainly, and I think Foster also, throughout this part of the climb, had one predominant feeling—of hearty satisfaction that we should not have to return the same way; it was always *possible* to get up from point to point, and doubtless, if need be, we could have gone down, but I should not have liked it at all. At 3.35, we stepped from the rocks on to the snow ridge, and found that we were about midway between the Bosses and the summit —clear evidence that, latterly, we had wandered from the exact route followed by Kennedy, if, as I believe is the case, he struck the ridge within a few yards of the top. However this may be the victory was won; we turned to the right along the ridge and at 3.55 were on the highest point of Mont Blanc. The ascent from the Miage glacier had occupied ten and a half hours, including less than an hour's halts by the way; from Courmayeur we had been fifteen and a half hours out.

As on both my previous ascents, in 1864 and 1865, by the Aiguille du Goûter and Brenva glacier, when also I was on the top late in the day—between 3 and 4 o'clock—I was fortunate in the view, which upon the present occasion was cloudless; the scene is one which admits of no description, and differs entirely from what is enjoyed from any other summit with which I am acquainted; from no other does the world seem so absolutely at one's feet, or is one so impressed with a feeling of being at the top of everything. Perhaps the most fascinating section of the panorama is that over the green country to the west and north-west, in which direction the effects of light were, upon this afternoon, exquisitely beautiful.

Of Kelso's party there was not a sign. We should have been greatly surprised if there had been. I heard afterwards that noon

had found them only at the foot of the rocks which are at the head of the Brouillard glacier, and that, turning back from there, they did not regain Courmayeur till ten at night.

We had a descent of over twelve thousand feet before us, if we meant to sleep in Chamouni—a consideration which, coupled with a rather cold wind, shortened our stay on the summit to twenty minutes. At 4.15 we commenced the descent by the route familiar to all of us. The snow on the Calotte was so hard that, in the absence of steps, it was necessary to be careful, but the Mûr de la Côte was in good order; not so the steep descent from the Corridor to the Grand Plateau, which seems to become more troublesome yearly, or the snow slopes between the Plateau and the Grands Mulets. We did not reach the *Cabane* till 6.45, in two and a half hours from the summit, half an hour more than is required under favourable conditions. No one was there, but we rested for a quarter of an hour before continuing our way. The glacier below was extraordinarily easy, and we got through 'the junction' very fast, leaving the ice at 7.50, just after the sun had gone down in glory quite unsurpassable.

Taking off the rope was postponed until we reached the Pierre Pointue chalet, which we did at 8.25, pleased to have passed that nasty bit of path before absolute darkness set in. During the uncoiling and coiling process, our triumph was celebrated in a bottle of champagne, and at 8.50, armed with a lantern, we commenced the final stage of the journey. I had a vivid recollection of former experiences of this path in the dark, and was not a little relieved when, after some wanderings in the lower part of the wood, we were fairly in the broad way at the bottom which, once struck, could not be missed. At 10.40 we rang at the door of the Hotel des Alpes, and were most heartily welcomed by my old friend, Herr Klotz, sometime manager of the Hotel Royal, whose astonishment on hearing what we had accomplished was profound. His hotel was full, but he undertook to have beds made up for us in the *salon* while supper was preparing, and with this accommodation we were well content.

So we had accomplished the feat of passing in a single day from Courmayeur to Chamouni over the top of Mont Blanc. We had been out twenty-two hours twenty minutes, and had

been actually on the move for nineteen hours fifty minutes of that time—a *tour de force* certainly, but, we flattered ourselves, something more than that: to repeat the performance may not be always possible, but to have established the fact that, upon a long summer's day, under fairly favourable circumstances, any competent party in good condition might expect to sleep on one night in Courmayeur and the next in Chamouni, having climbed Mont Blanc in the interval, seemed to us to have established something very important and advantageous to mountaineers. At any rate, it may perhaps be pardoned to us, if we retired to our improvised beds in a pleasant mood of self-satisfaction and complacency.

Tuesday, 22nd July.—We were up at 8.30, fresh as larks, and ready to enjoy that not least pleasant of Alpine pleasures—an idle day at Chamouni before our next expedition, which was to be an ascent of the Aiguille d'Argentière,[5] that to be followed by a move to Kandersteg in view to the Blumlis Alp and Doldenhorn.

NOTES TO CHAPTER XIX

[1] See *Alpine Journal*, vol. vi. pp. 90 and 168.

[2] The glacier followed on this expedition is that at the head of which stand the first letters of 'Dromadaire' in the sketch map at p. 133. The sketch map is, however, very inaccurate here—there was no reasonably good map at the time it was published. Imfeld's *Chaîne du Mont Blanc* ($\frac{1}{50.000}$) is far the best map of the district now accessible, and shows very clearly the enormous extent of the ground to be covered on this ascent, which the 1873 party so much underestimated.

[3] This route is now made very convenient by the *Quintino Sella* Club Hut, at a height of over 10,000 feet, and about seven or eight hours' walk above Courmayeur, and about the same distance from the summit.

[4] See note 3 to chapter vi.

[5] Moore's account of this ascent forms the last part of chapter vii. above.

CHAPTER XX

THE MÖNCH

At the end of chapter xi. is given an account, from the diary of 1872, of the accident on the Bies Glacier by which Moore dislocated his shoulder. This was on the 6th of July. After leaving Zermatt, he crossed the Col d'Hérens, crossed the Rhone valley, climbed the Wildhorn, Wildstrubel, and Rinderhorn, and finally crossed the Gamchi Lücke, and on the 20th July found himself at Grindelwald, where he made up his mind to attempt the Mönch, in spite of the fact that his left arm was in a sling. The following chapter is taken from his diary of the year. It is substantially the same as a paper which is published in the *Alpine Journal* for November 1875.

Sunday, 21*st July*.—I spent the whole of a glorious day in brooding over the unfortunate position in which I was placed by my maimed shoulder, with an hourly growing disinclination to accept the enforced abstention from serious work which seemed imposed on me. I could not get the Mönch out of my head. With that peak I had a very old quarrel, dating from 1862, when an attack made with Mr. George on the apparently precipitous face, familiar to every Oberland tourist, had signally failed. The upper part of the mountain was that

year hard ice; and ten hours' work, comprising four or five of continuous step-cutting by Almer, then in his prime, and, as now, loth to admit defeat, had taken us little more than half-way up the final slope, a long thirteen hundred feet below the top. How hopeless had been our chance of success on that occasion is shown by the history of Herr von Fellenberg's expedition of 1866.[1] On the 11th July in that year, with Christian Michel and two other Grindelwald men, that gentleman bivouacked high up on the rocks; next day they started at 4 a.m., but at 1 p.m. were still so distant from the top that they were compelled to turn, and pass a second night at their original bivouac. On the 13th, starting at 3.30 a.m. and utilising the steps cut on the previous day, they gained the summit, but not until 3.30 p.m., and were compelled to pass a third night out, on the rocks of the western arête, high above the Jungfrau Joch. On the following day, the fourth, they reached Grindelwald by the Mönch Joch. The next and only other ascent up to 1872 was made in 1871 by Herr Bischoff, of Basel, a well-known member of the Swiss Club, whose experience was scarcely more favourable than that of his predecessor, for he was, I believe, three days on the mountain between the Wengern Alp and Grindelwald.

Since 1862 scarcely a year had passed in which the ascent of the Mönch from the Wengern Alp had not been included in my list of *agenda*. But circumstances had been persistently unfavourable. Either the season had been hot and dry, converting the mountain into a pillar of ice, or, more frequently, the weather at the critical moment had been hopelessly bad and the expedition impossible from that cause. At present the conditions were unusually favourable; the weather was brilliant, the quantity of snow still lying in the high Alps was very great, and its condition was generally good. Now, if ever, the great slope from which we had been beaten back in 1862, and which had cost even its successful assailants so much labour, seemed likely to be reasonably accessible, and its appearance, as seen from the Faulhorn, bore out this view. Galling was it, therefore, to find myself precluded by a trivial accident from seizing the propitious moment, and finishing the piece of work which had been begun a decade before.

By evening I had succeeded in persuading myself not only that, as an abstract principle, two arms were *not* essential to climbing, but that of all mountains which could be named, the Mönch was that offering fewest difficulties to a one-armed man. The conclusion was not so absurd as it may appear. The lower rocks of the mountain are, as I knew from past experience was the case, quite easy. The only difficulty of the slope above them, if snow-covered, as I hoped and believed it would be found, arises from its extreme steepness. The ascent would resemble the ascent of a ladder, an operation for which two hands, though desirable, are not indispensable. With Melchior in front and Jakob behind the thing seemed feasible, and it only remained to hear what those good men and true would have to say on the subject when they rejoined me. . . .

Monday, 22nd July.—Melchior and Jakob arrived about noon, and greeted with enthusiasm my rather hesitating proposal to attempt the Mönch, so the expedition was definitely determined on for the morrow.

Of course, everything would depend on what the condition of the mountain might prove to be. If, contrary to our expectation, it should turn out to be bad, I had quite made up my mind not to persevere. I had no wish either to subject the guides to the labour of a prolonged piece of step-cutting, or to expose the whole party to the risk which in that case might arise from the circumstance of one member of it being more or less disabled. An ice-slope of sixty degrees is not the place for a one-armed man.

We started at 4.10 after an early dinner, in rather doubtful weather, a brilliant morning having been succeeded by a threatening afternoon; but, in spite of a heavy shower, the appearance was not wholly unfavourable, and we had a robust faith in a second change for the better. . . . We had a steamy walk up to the Wengern Alp, where we arrived at 6.55, and received at the Hotel Bellevue that friendly reception which is always accorded there to old acquaintances.

The aspect of the Mönch from the nearer point was not less promising than it had seemed to me from the more distant Faulhorn. The lower rocks, ordinarily bare, were interspersed

with numerous and extensive snow-slopes, which would save a good deal of troublesome though not difficult climbing, and the upper part of the mountain, seen through a strong glass, showed no ice, though it could not be said with certainty that that formidable obstacle would not after all be found. The cautious Melchior took care to impress this upon me; but, for him, was sanguine of success. The more cheerful Jakob had no doubts at all, as he informed me, with several playful pats on the back by way of emphasising his opinion.

The appearance of the weather the last thing at night, though not quite settled, was on the whole promising, so that we retired in good spirits to our brief slumbers.

Tuesday, 23rd July.—We rose at midnight, and at 1.5 were on our way over the undulating pastures which extend between the inn and the Eiger Glacier. The night was clear, but very warm, and there was moon enough to light us across the glacier, which is sufficiently steep and broken to require care and give trouble to a man whose arm is *hors de combat*: the passage, in fact, was to me the most difficult part of the day's work, and I was heartily relieved to find myself on the rocks beyond without having undergone another smash. We kept pretty straight up the rocks, leaving on the right the way to the Guggi Glacier and Jungfrau Joch, and made use of the snow-slopes whenever possible; these were hard and steep, but a single blow of the axe gave good foothold, and we rose so fast that by 5.30 we were at the top of the buttress that separates the Eiger and Guggi Glaciers in their middle and lower regions.[2] The view from here of the shattered glaciers on either hand, the sharp peak of the Eiger, the grand ice-cliffs below the Jungfrau Joch, and the double summit of the Jungfrau itself, is very striking, and we enjoyed it to the full, while halting for breakfast and scanning with anxious curiosity the next stage in our route.

The buttress is connected with the higher part of the mountain by what in 1862 had been a narrow edge of snow, but was now a broad slope rising gradually and merging in the steep broken névé above. From our position we were able for the first time fairly to survey the work before us and form an estimate of our chances. The upper part of the Mönch on

this side is a precipitous curtain of ice, of no great width, facing directly towards the Wengern Alp; on the west it is enclosed by a ridge which overhangs the Guggi Glacier; on the east it is prolonged right down to the Eiger Glacier, many thousand feet below. For some hundreds of feet below the summit the main front is very sheer; it is then broken by a small nearly level plateau, below which the ice again curls over with tremendous steepness towards the more moderate slopes at the base of which we were sitting. The whole difficulty of the ascent is in passing from our position to the plateau above; once there, the ridge forming the western edge of the curtain offers a tolerably easy route to the summit. The condition of this slope below the plateau varies in different years; it has a tendency to break into séracs, but only fairly does so at a few points out of the direct line of ascent; the result of this tendency, however, is a succession of protuberances in the ice, which are more marked in some years than in others. In 1862 a wall of some height stretched at one point completely from side to side, and was so nearly perpendicular as to be plainly impassable without a ladder, with which we had then been provided. In later years no such obstacle had been visible from below, and now it was happily absent, the slope rising straight overhead at a tolerably uniform angle. For us, therefore, the whole question depended upon the presence or absence of ice, and as to this we were still unable to pronounce with certainty.

At 5.50 we moved to the attack. Short zigzags up the intervening slopes, which grew rapidly steeper, brought us to the base of the icy fortress which we had to escalade. Melchior made first for the left-hand corner above the Eiger Glacier, a manœuvre of which I highly disapproved, the inclination there being, as it seemed to me, greater than at any other point. I had a lively recollection of being in much the same position in 1862 for a space of some three hours, during which I had had the pleasure of contemplating between my legs the glacier at a vast depth below, and reflecting how very rapid the descent to it would be if I let go, while Almer in front, hewing monstrous steps, had showered down débris upon my head; and I had no desire to repeat the experience. It was therefore a great relief

when Melchior, after taking a good look around, changed his plan, and began cutting steps to the right, across the face of the slope, preparatory to turning directly up it. I have never stood on steeper ice, for ice it was, though not of the 'hard blue' sort so often spoken of but so seldom seen. We moved with the greatest caution, one at a time, for my bandaged shoulder being at this point turned to the slope, I could make no use either of my axe or of finger-holds, and could trust only to my feet and the rope which Melchior drew in as I slowly and steadily moved from step to step. Had there been much of this sort of work we could not, under the circumstances, have persevered, except at great and unjustifiable risk. But the worst was soon over; about fifty steps brought us to a point where we could face the slope and turn upwards. For some short distance the ascent was still over ice, but this by degrees gave place to snow, which, though so hard that the use of the axe was always necessary, involved comparatively little labour. Accordingly, with light hearts, but never relaxing caution, we were soon mounting steadily, hand over hand, and at 7.50 stood on the little plateau, the attainment of which assured success. The summit of the mountain, though apparently close at hand, was still distant, but we felt justified in anticipating the regular order of things, and sending down cheer after cheer to our friends at the Bellevue, who could be seen grouped outside the door, and shortly returned our salutation by a gun.

The icy curtain above the plateau was cut off from it by a bergschrund, which we crossed without any trouble at its western end, just below the bounding ridge on that side. A few steps took us on to that ridge, which offered a route more circuitous but infinitely less laborious than a straight course up the face. Rocks alternated with snow as far as the point of connection with the western arête of the mountain, descending towards the Jungfrau Joch, which we struck at 9.15, and found ourselves face to face with the world of mountains to the south. This ridge, below the junction, is narrow and broken, and may not be practicable along its whole length, but it seemed quite feasible to traverse its southern face and so reach the Aletsch Glacier. In the opposite direction, which we had now to follow, it was

all plain sailing; the arête was entirely snow, and, though very narrow, was quite easy to traverse and inclined at a very moderate angle. We marched gaily along it, expecting each successive point to be the last, but the way was long, and it was 10.0 a.m. before we stood on the small plateau which forms the summit of the Mönch, and heard the gun which announced that we had been seen from below. We were many hours earlier than we had expected in our most sanguine moments, and the men were wild with delight, and, like myself, were exuberant in their demonstrations. Up went our hats in the air—a form of expressing satisfaction which should be cautiously indulged in, as I learned by experience, for mine came down again out of reach, and cannot have found a resting-place nearer than the Eiger Glacier.

But what mattered the loss of a hat at such a moment, in such a position! We had before us the plain of Switzerland, behind us the Pennines, on either hand the great peaks of the Oberland, and overhead the cloudless sky. The summit (13,466 feet) is roomy and comfortable, a snow ridge very like the top of Mont Blanc. The view was perfect, and specially clear in the north, where, through the telescope, we distinctly made out the city of Bern; Thun seemed almost at our feet.

The air was calm and warm, and we passed an hour of perfect bliss before commencing the descent. It had been left doubtful whether we would return by the way we had come or follow the route usually taken from the Aletsch Glacier and regain Grindelwald by the Mönch Joch. We had now no difficulty in deciding on the latter course. Not only should we thereby complete our knowledge of the mountain, but we considered that, although a descent to the Wengern Alp could probably be effected in safety, there would be parts of the way which would be unpleasant.

Besides the western arête which falls towards the Jungfrau Joch, as to which something has already been said, the Mönch sends down two others—one in the direction of the Eiger, a very hopeless-looking ridge, the other to the south towards the Trugberg; the latter shortly bifurcates, one arm sinking to the Mönch Joch, while the other keeps its original direction; by this

THE SUMMIT OF THE MÖNCH.

last the ascent of the mountain is usually made, and by it we now, at 11.0 a.m., prepared to descend.

As far as the point of bifurcation the inclination of this southern arête is very moderate; beyond that point it becomes steeper. It is as narrow as an arête can be. On the left hand is an absolute precipice; on the right a slope, which might be called precipitous, falls to the Aletsch Glacier. The quantity of snow on the ridge was enormous, and the sun had begun to tell upon it. We knew too much to attempt to approach the upper edge, and kept at a distance of some twelve feet below it on the Aletsch side; lower down we dared not go, owing to the steepness of the slope and the danger of starting an avalanche. With Melchior in front, it is unnecessary to say that we moved with the greatest caution. No man is more alive than he to the danger arising from a snow cornice.[3] He sounded with his axe at every step, and we went steadily along, anxious, but with every reason to believe that we are giving the cornice a wide berth. Suddenly came a startling cry from Melchior. At the same instant I felt myself stagger, and, instinctively swinging ever so slightly to the right, found myself the next moment sitting astride on the ridge. With a thundering roar the cornice on our left for a distance of some two hundred yards went crashing down to the depths below, sending up clouds of snow-dust which completely concealed my companions from me. It was only by the absence of all strain on the rope that I knew —though at the moment I scarcely realised the fact—that they were, like myself, safe. As the dust cleared off, Melchior, also sitting astride of the ridge, turned towards me his face, white as the snow which covered us. That it was no personal fear which had blanched our leader's sunburnt cheeks his first words, when he could find utterance, showed—'God be thanked!' said he; 'I never thought to see either of you there.' We had, in fact, escaped destruction by a hand's breadth. As I believe, our right feet had been on the ridge, our left on the cornice; we had thus just sufficient firm standing-ground to enable us to make that instinctive movement to the right which had landed us *à cheval*, for Jakob had fallen in the same position as Melchior and myself. Few words were said; but words poorly

express the emotions at such a moment. Melchior's axe had been carried down with the cornice as it fell, but had fortunately lodged on the face of the precipice fifty feet below. It was too precious to leave behind, so we let him down by the rope, and, descending in the cat-like way peculiar to first-class guides when not hampered by *Herrschaft*, he regained it without difficulty.

Our further descent was uneventful. So great a length of the cornice having fallen we were for the first time able to see our way in front, and determine the best line to take along the arête without fear of further accident. The ridge was generally snow, but rocks cropped out here and there; the slope on the right gradually became less formidable, so that at last we were able to strike straight down to the Aletsch Glacier, over which a few steps took us at 12.25 to the Col on the north side of the Trugberg. Crossing the head of the Trugberg Glacier and climbing the low wall at its head, we stood at 1.5—in my case for the third time—on the Mönch Joch.[4]

Here a halt of ten minutes was made before commencing the descent to Grindelwald. Bearing away well to the right over very soft snow, we reached the top of the Bergli rocks at 1.55, where a very decent hut has been built in a convenient but exposed position. We remained there till 2.25, and then scrambled down the snow-covered rocks to the broken glacier below; owing to the enormous quantity of snow the passage of this was less troublesome than usual, but some of the slopes were in rather queer condition, and, voluntarily or the reverse, we started some really big avalanches in the course of the descent; fortunately, they were always in front of us. Near the bottom we met a party headed by Peter Baumann on their way to sleep at the Bergli hut, whose astonishment was considerable on learning what had been our day's work. We got on to the slopes of Kalli at 4.10, descended them quickly to the Grindelwald Glacier, crossed to the Eis-meer hut, and, following the familiar path, at 6.10 reached the 'Adler,' which I approached in a most undignified style, falling headlong over an unobserved log of wood—fortunately with no serious result to my shoulder, which had stood so well the work of the day, one of the most successful in my Alpine experience.

Wednesday, 24th July.—Having nothing better to do to-day I amused myself by walking up to the Wengern Alp for the purpose of looking again at our route of yesterday. I found a number of tourists at the Bellevue regarding, with great curiosity, my traces on the steep snowy face of the Mönch, which were plainly visible, and I contemplated them also myself with particular pleasure. Through a telescope every step on the difficult part of the mountain, from the top of the buttress to the plateau below the arête, could be followed. I returned to Grindelwald in time for dinner, and, as the weather continued to promise well, arranged to spend to-morrow in an ascent of the Mettenberg, the most northerly point of the great ridge which, radiating from the Schreckhorn, separates the upper and lower Grindelwald Glaciers.

NOTES TO CHAPTER XX

[1] This expedition is fully described in Studer, *Eis und Schnee*, vol. i. p. 202.

[2] See description of Plate XVI.

[3] See description of Plate XXI.

[4] It will be remembered that the Mönch Joch is not, like the Jungfrau Joch a pass across the great frontal face of the range, but a pass across two subsidiary ridges (for the Ober and Unter Mönch Joch are practically one pass) extending back from the Mönch to the Trugberg and the Viescherhörner respectively.

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